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ORIGINAL ARTICLES.

CANCER OF THE BREAST AND ITS RADICAL CURE.

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Of late years investigators have endeavored to demonstrate the real nature of cancer. Facts have accumulated, observations of great interest have been recorded, and various ingenious theories have grown out of these investigations. But, in spite of the enormous amount of time and labor spent, the subject remains a matter of speculation.

The medical profession inclines toward the theory of a parasitic origin for cancer, but up to the present time evidence has not been produced sufficient to establish a single claim for this opinion.

Among general surgeons the tendency is to regard cancer as contagious, which implies infection. It need only to be said that particles of cancer in various stages of development,[1] cancer juice,[2] and extracts prepared after the manner of organic extracts[3] have been injected into the cellular tissues of dogs, guinea pigs, rabbits and rats, and that the results have proved the innoxious character of these materials.

Cases have been reported by modern authors as instances of contagion from man to man, but Alibert inoculated himself and four other persons with cancer and the experiment gave negative results. He has had few if any imitators.

There is the theory that cancer is caused by either a bacterium, coccidium or protozoon. Braithwaite thinks it probable that it is caused by a fungus which he describes at length in a recent number of the London *Lancet*. Perhaps the day is not far distant when the microscope will reveal the true nature of this malignant disease.

Various factors have been cited as influencing the development of cancer. First to be mentioned is heredity. It is estimated that between four and thirteen per cent. of cancer patients give a history of this disease in direct and immediate ancestry. It is interesting to note the relationships of the individual parent. Observation has led me to esteem true cancer as a paternal heritage. I reason thus: True cancer is of epithelial origin; the free surfaces of the body are covered with epithelium; the largest extent of such structure we have in the integument. It is well known that the characteristics of the skin, hair, etc., are transmitted from the paternal side. For example, the progeny of a white woman and a negro show the negro paternity by the color and character of the skin, while the progeny of the negro woman and a white man evidences the white father in like manner.

Traumatism, chronic inflammations and benign neoplasms can be factors only when they occur in an otherwise predisposed person. Any long-standing affection of the nipple or areola is a dangerous condition, liable, in the course of time, to undergo cancerous degeneration.

It would seem but natural that the power of resistance in any individual to the morbid agent of a disease would be

measured by the vital powers of that individual. The young and robust therefore should favorably modify the process; such is the case in the infections and intoxications but rather the reverse holds good in cancer—the younger the subject the more rapid the progress.

The diagnosis of mammary cancer is comparatively easy, while it is not free from difficulty in many cases. Yet we are justified in pronouncing all doubtful neoplasms to belong to this group, even cystic disease of the breast[3] (which Mr Thomas Bryan, of London, has differentiated from cancer) has been found in the majority of instances to be malignant. I do not consider it wise to wait for positive evidence of the accuracy of the diagnosis, as valuable time would be lost. Interference at the very earliest stage of infiltration will give most satisfactory results. Billroth says that "a solid tumor developing in the breast of a woman over thirty-five years of age, which continues to increase in size, is usually carcinoma. Small tumors appearing from twenty to thirty years of age, movable, of slow growth, and painless, are usually the result of inflammatory action due to trauma or fibroids."

It may be stated that a majority of the tumors appearing in the breast in women under thirty-three years of age are benign.[4] After thirty-three years of age I hold that every tumor of the breast, whether cystic, fibromatous, or not, sooner or later undergoes malignant degeneration in one form or another. The relative frequency of tumors in the breast are, according to statistics taken from 9,227 cases, as follows: Cancer, 77.6 per cent.; sarcoma, 4.1 per cent.; non-malignant, 15.6 per cent.; cysts, 2.6 per cent. So it will be seen that in the breast the proportion of malignant to non-malignant neoplasms is 81.7 for the former and 18.3 for the latter. Ninety-nine per cent. of all tumors of the breast occur in females. A peculiar cachexia is usually spoken of as pathognomic. This, however, in cancer of the breast I have never seen until general dissemination has occurred, with an involvement of other organs, which is usually accompanied by septic fever.

Metastasis occurs through the lymph channels in carcinoma, and through the blood channels in sarcoma. According to one authority,[5] in 16 per cent. of carcinoma the metastasis transpires without infecting the lymph glands. In the order of their frequency the metastatic deposits occur respectively in (1) the pleura, (2) the liver, (3) the lungs, and (4) the bones. Kuster, who was the first to advise and insist upon the removal of all the lymphatic glands of the axilla, in 1877 stated that in operations upon 163 cases of breast carcinoma he found enlarged axillary glands 158 times, or in 97 per cent. Before operating the glands could be felt in only 70 per cent. Strange as it may appear, the axillary glands being most constantly the first to show evidence of infection, recurrences in the breast amounts to less than 5 per cent. when the glands have been removed; 85 per cent. of recurrences first manifest their presence in the cicatrix immediately over or very near the original location of the neoplasm.

Prognosis.—I know of no affection which has yielded so unsatisfactory results to both patient and surgeon as cancer of the breast. All statistics up to 1890 agree in showing that the outlook is gloomy in the extreme, 97.3 per cent. returning in some form within five years. The average life of a patient so afflicted may be set down as less than five years.

Paget says: "In deciding for or against the removal of a cancerous breast in any single case we may dismiss all hope that the operation will be a final remedy for the disease. I will not say that such a thing is impossible, but it is so highly improbable that the hope of its occurrence in any single case cannot be reasonably entertained." Again he says: "I am not aware of a single clear instance of recovery, that is, with a patient who lived for more than ten years free from the disease or the disease stationary." Hodges[6] says: "I have never known but one instance of seemingly prolonged life after removal of cancer of the breast," and this surgeon prides himself on his success in persuading women thus afflicted who have applied to him for operation to give up all idea of surgical interference.

Statistics of the ten years between 1880 and 1890, furnished by Dennis, Reclus, Kuster, Poulson, Butlin, Senn and Phelps, taken collectively, represent 27.5 per cent. of cures—that is, patients free from the disease three years after operation. Since 1890 more favorable results have been

attained. Rotter reports to the Berlin Medical Society (1895) that he had operated upon 19 patients for the relief of cancerous tumors of the breast in four years. Of this number 17 are still living without having presented recurrences of the mischief, local recurrence having occurred in 2 only. The treatment of cancer of the breast at the present time is by one of three methods, (1) serotherapy and inoculation by toxins, (2) removal by cautery or caustics, (3) extirpation.

The serum treatment was introduced by Richet and Hericourt (Paris). I believe its application to the treatment of cancer was first suggested by Dr. Paul Gibier, of New York, in a communication addressed to the Paris Academy of Sciences in 1893. Dr. W. B. Coley, of New York,' claims to be the first to suggest and use the mixed toxins of the bacillus prodigiosis and erysipelas streptococci. With the filtered culture of these toxins he reports some interesting results (Medical Week, June 15, 1894): "The first case was one of recurrrent sarcoma of the tonsil. The injections were continued for some time without success, but finally a culture from a virulent case was used and caused erysipelas, the tumor ceased to enlarge, the general condition improved and the patient is still living, three years after the beginning of the treatment." Again he says: "Those cases in which the disease (erysipelas) was not induced seemed to be as much benefited as those in which it was." In all his cases he reports that in no case has the tumor disappeared when it was carcinoma, but in three out of twenty-four cases of sarcoma the tumor entirely disappeared. Dr. Matagne (Brussels) relates fourteen cases of inoperable malignant tumors, which he treated with Coley's method, with the following result: One definite recovery, three incomplete recoveries, seven improvements and three failures.

The results of injection of animal serum previously inocnlated with cancer juice, according to Richet and Hericourt, are negative, such as would be attained after injection of normal solution. The danger of this treatment lies in the determination of intoxication, and increase in the growth and propagation of the tumor. A cancer, for instance, which has lain dormant will be given impetus to grow and proliferate after this treatment and rapidly terminate in generalized carcinomatosis. Such is the history of cancers so treated. Probably 5 per cent. of supposed sarcomatous tumors will disappear.

The second means of treatment mentioned is that by cautery and caustics. Butlin, in St. Bartholomew's Hospital Reports, cites a record of 162 cases of carcinoma of the breast treated by Bougard with caustic paste in which the axillary glands were involved. According to Bougard he had no deaths during the treatment, and he claims a larger per cent. of cures than by extirpation. The paste he used consists of fluor, 60 grams; starch, 60 grams; arsenic, 1 gram; cinnabar, 5 grams; sal-ammoniac, 5 grams; corrosive sublimate, one-half gram; solution zinc chlorid, 52 per cent., 245 grams. Butlin thinks it sufficiently successful to require notice.

Pyoktanin, introduced by Mostig Moorhof (Vienna) in aqueous solution of 1 to 200, injected into inoperable cancer, has some advocates. Dr. Hue, surgeon to the Rowen Hospital, reports (Medical Week, 1895) some experiments in the use of injections of arsenic in cancerous tumors of the breast. For this purpose he first used Boudin's solution (1 to 1,000 of arsenious acid), and later the following mixture: Arsenious acid, 20 centigrams; cocain hydrochlorate, 1 gram; boiled distilled water, 100 grams. Mix. One or two syringefuls of this are injected into the neoplasm at intervals of from two days to a week. Several cases of successful results are reported under this treatment. Dr. Planel, of Rome, had under his care a woman with mammary cancer whom he cured by injection of arsenious acid. F. A. Faflouse (Province Medical, May 18, 1895) reports having received in seven cases of cancer of the breast marked benefit in all by injecting into the tumor a solution of salicylic acid. The author used a 6 per cent. solution in alcohol, and from one to four cubic centimeters were injected in four or five different parts of the neoplasm. The writer says: "It is true the injections were painful, but the pain rapidly subsided and there are no secondary unfavorable symptoms of any kind."

Among other therapeutic agents recently brought forward may be mentioned alcohol, which is used by injecting it

around, but not into, the tumor, in quantity sufficient to produce slight intoxication. Dr. Hasse[9] (Nordhausen) by injections of alcohol, which he reports having used for upwards of twenty years, obtained complete recovery in the case of a mammary carcinoma (cancer en cuirasse) which Volkman had declared to be incurable.

Phytolacca decandra was introduced by Dr. Goodman, who states that he has carried out a series of experiments with this juice and that it exerts a positive destructive action on malignant tumors. The juice is obtained by reduction in a mortar and expression of the pulp of fresh leaves of the plant, and this is evaporated until it becomes of the consistence of paste. The paste is applied to the tumor on pieces of cloth sufficient to cover the mass, renewing the application, after washing the affected part, twice a day. The destructive action of this preparation is manifested by sharp pain.

Methylene blue, recommended by Dr. J. Darier (France) in 1893, has been used with some success both by Darier and Dr. Du Castel. Interstitial injections of a solution composed of 1 gram of methylene blue in 5 grams of alco hol and glycerin, also a 20 per cent. solution of chromic acid is used alternately for the first four injections which are made into the tumor, one only being given a week.

Dr. N. Denisenko, principal physician to the City Hospital of Briansk, commends the injection of an extract of tetterwort (chelidonium majus) into the tumor and around it. He uses a mixture of equal parts of extract of chelidonium, glycerin and water, one cubic centimeter divided into several injections. Internally he administers from 1.5 to 5 grams of the extract daily. Considerable febrile reaction follows these injections. Satisfactory results from the use of this drug are also reported by Dr. Robinson, of France.

Numerous other agents have been tried with varied results. A friend, returning from a visit to New York, January, 1896, reports to me that he saw one case of inoperable carcinoma undergoing treatment by Dr. Rowe with injections of proto-nuclein into the neoplasm. Dr. Bosworth, of New York, was at the same time using proto-nuclein in some cases of carcinoma. Not observing any report from these gentlemen, I assume that the experiments bore negative results.

Up to 1889 the result of operative interference has been exceedingly unsatisfactory. Since the introduction of antisepsis and asepsis the results have been more satisfactory, yet these results have been far from gratifying the ambition to be able to say to a patient that an operation will cure.

My definition of a radical cure of cancer of the breast is:

SO THOROUGH A REMOVAL OF THE CANCER ELEMENT THAT ITS RECURRENCE IN THAT LOCALITY IS PREVENTED, AND METASTASIS RENDERED IMPROVABLE.

The cause of failure heretofore in the operative treatment of cancer of the breast I attribute to inefficient knowledge of the anatomo-pathologic condition of the tissues involved, its development and proliferation. One observer writing on this subject, says: "Primary cancer being the expression of a neoplastic degeneration of the epithelial coat of an organ, *partial* removal of this coat may be followed by a relapse through subsequent cancerous transformation of the epithelium left behind; for it seems perfectly reasonable to assume the existence, in the epithelium of this part, of the same disposition to neoplastic degeneration which existed in the part originally affected."

Another observer[10] examined microscopic sections of a large number of mammae, in some of which the carcinomatous nodule was of very small size. He exceptionally met with normal tissue even in the remote portions of the gland, and between these lesions every degree of cancer development could be distinctly observed. Therefore whenever a carcinomatous nodule exists in the midst of mammary tissues, be it ever so small, the entire gland may be said to be in a precarious condition, and the smallest portion of this tissue left behind in an operation will in all probability be the starting point for a recurrence of the disease.

The recognition of the limits of mammary tissue is most important. In 1893 I dissected the mammae of six subjects, and found in all a prolongation, varying in extent, representing a lobe in the axillary region. In one subject a prolongation or tongue of mammary tissue reached very near the clavicle, and in two of the sub-

jects irregular sternal prolongations were noted. Dr. Paul (Liverpool) exhibited to the Pathological Society of London a specimen of mammary schirrus which he had removed from the axilla of a healthy married woman, aged 29 years, which had infected the glands. (Transac. London Patholog. Soc., 1894.)

Later researches go to show that the enlargement of the lymphatic glands from cancer infection are subsequent to metastatic deposits which occur in the course of the lymphatic vessels before they reach the glands. This is especially true of the retro-mammary lymphatic vessels which conduct the lymph from the posterior portion of the mammae by several vessels, which pass on to the axillary and subclavicular glands, and not as Sappey would have us understand, that all the lymphatic vessels in the breast carry their contents to the plexus around the nipple and from this plexus pass directly to the axillary glands. Indeed, there are still others, known as the deep lymphatics, which carry their lymph into the anterior mediastinal glands, or into the lymphatics which follow the internal mammary vein, and empty into the lower and deeper glands of the neck. So you will see that more roads than one are open for the dissemination of cancer foci.

Since microscopic investigation has revealed the existence of what Senn calls *carcinomatous lymphangitis* at a period so early in the development of neoplasm in the breast that no trace of its existence can be made by microscopic examination, it is plain to us that to insure the best results we should treat every case of cancer of the breast as though lymphatic infection was already present, and remove with the breast every vestige of the lymphatic system in relationship with that mammae. This makes the operation quite formidable, as it necessitates the removal of one or possibly both pectoral muscles, since the lobules of the breast as well as the lymphatics are intimately connected with the pectoral fascia.

The chief objects to be borne in mind throughout the operation are, first, to get away every atom of the disease. This can only be accomplished by the sacrifice of all tissue which lies in proximity to the tumor, for, owing to the amount of fat which is often present, it is exceedingly difficult to make sure that every particle of gland tissue has been removed, especially when the parts are obscured with blood. In order to bring out cancerous nodules or gland tissues that might be left behind, Stiles (Edinburgh) recommends the excised breast be placed for ten minutes in a 5 per cent. solution of nitric acid, which causes the parenchyma of the gland and the cancerous tissue to assume an opaque white color. According to Kummer,[12] this examination can be made while the operation is in progress, and enables the surgeon to make sure every particle of the affected gland has been removed.

The second object is to remove entirely the lymphatic tract between the breast and the axilla and between the breast and sub-clavicular glands. The close relation which the neoplasm sustains to the pectoral fascia, and the knowledge of the presence of numerous lymph channels in this membrane makes its removal imperative. In doing this, however, I do not follow the advice of Heidenheim[13] or W. Watson Cheyne,[14] who remove only the fascia and a layer of the surface of the pcturalis major muscle, but preferably follow the advice of Halstead[15] or Rotter,[16] and remove the entire muscle—certainly the costo-sternal portion, which in no degree interferes with the function of the limb.

The third object is to clear out the axilla and sub-clavicular fossa. This should be done in every case of cancer of the breast, whether any enlarged glands are present or not. This work is facilitated by the previous removal of the pectoral muscle. Under the present method of operating the patient has every encouragement, provided they submit to early interference. In this country either the operation of Halstead or Mayer, or some modification of their operation, is performed. While they differ in detail, they accomplish very nearly the same result.

Meyer begins at the insertion of the pectoral muscles and removes both these muscles entire and all the glandular structure in the axilla, together with the breast, all in one piece. Halstead makes a reverse figure of six incision, and, beginning at the sternum, removes all the pectoralis major, and the pectoralis minor is cut through about the middle. The upper

half is reflected and the lower half, with the fat and cellular tissue beneath it, is loosened, together with the axillary contents, and finally all is removed in one piece. Neither of these, to my mind, are ideal operations. While they both have points of merit and their results are better than any of their predecessors, there is room for improvement.

The principle which we should never lose sight of from the very beginning throughout the entire operation is to go far out into the virgin tissue, so far as to make it a certainty that the tissue remaining is not contaminated. The initial step therefore in the operation is to remove a sufficient area of skin to insure immunity from this source. Where the tumor is located upon one side of the breast the skin over that half should be sacrificed, together with the nipple and at least an area of two inches of integument from the sound side. When the infiltration is central or nearly co-extensive with the breast I excise the skin of the whole mammary region and by autoplasty, or skin graft, cover the raw surface.

Halstead had 19 per cent. of recurrences, the seat of the recurrent neoplasm being in every instance the skin. Again, in dissecting out the mammary gland take care to get well above and below the limits of the breast, keeping in mind the frequent prolongations of mammary tissue in different directions. The skin should be dissected up from the fat and the lobules of the gland as high as the clavicle, downwards to the origin of the abdominal muscles, inward as far as the middle of the sternum, and outward to the latissimus dorsi. When the skin dissection is finished the pectoralis major should be removed from its origin to its insertion (in cases operated upon at a very early period it will only be necessary to remove the costo-sternal portion of this muscle). After this use the finger or a blunt instrument and clear out the lymphatic glands, beginning at the apex of the axilla right up under the clavicle, which can now be reached with all ease, as the pectoralis major muscle has been removed, detaching the whole of the fat, lymphatic glands, and vessels. It is important to remove all the tissue in one piece and avoid cutting through any tissue which may be infected.

The next important step is to coapt the flaps and see how near the wound can be closed. Viewing the wound with the arm raised as in the operation, it appears at first quite hopeless, but by bringing the arm down and relaxing the tension of the integument we can almost always bring the flaps in satisfactory apposition. Where the tension is great it should be distributed as evenly as possible by using a large number of sutures, beginning at each extremity of the wound and approaching the center. When it is found impossible to close the wound in this manner the edges should be brought so nearly as possible together and stitched to the pectoralis minor muscle, and the raw surface covered by autoplasty, or skin graft, or left to heal by granulation process.

There are many minor points incident to the operation which I need not detail, as they will be dictated by the general rules of modern surgery and a little common sense. I mean the ligation of arteries, providing proper drainage, the necessary dressings which should include two large compresses, one above and one below the wound, evenly applied to all that surface of skin which was raised in the course of dissection, and fixation of the arm and shoulder. Finally, the patient should be kept as much propped up as possible, and turned on the sound side, thus facilitating drainage from the axillary end of the wound. With the advanced knowledge of the anatomo-pathologic character of the organ and disease in question there is no reason why the operation should not result in a cure.

In my last two cases I supplemented the operation by the administration of arsenic in increasing doses till the production of its physiologic effect, and continued it in the maximum quantity for three or four months, with what I believe to be beneficial results. The quantity of arsenic some of these patients can tolerate is surprising. One of my patients took two grains of arsenious acid divided into three doses every twenty-four hours without inconvenience. With regard to my cases, eleven in number, nine, operated upon by the old method, all died promptly from recurrence and metastasis within two years, five within twelve months, two in fifteen and one in seventeen months.

My last two were operated upon as described in this paper, one six and one four and a half years ago; the one operated upon six years ago is still living, with no recurrence, and the other died last summer from a disease which had no relation to cancer, i. e., la grippe.

My colleague, Dr. J. C. Cawood (Knoxville, Tenn.), operated upon Mrs. S., age 48, for cancer of the breast in 1889. The operation which he performed was in many respects similar to the one I have just described. The patient is living at this time and has had no recurrence.

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THE TREATMENT OF ABORTION, WITH REMARKS UPON THE USE OF ERGOT.*

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That the subject is of very great importance is evidenced by the fact that a large number of cases of pelvic disease date the beginning of trouble to a neglected or improperly treated abortion.

Ever since beginning the practice of medicine I have adopted as a cardinal principle of action, the axiom that an empty uterus is a safe uterus, and the organ is only safe when it is empty. To bear me out in this statement I will say that out of the comparatively large number of cases it has fallen to my lot to treat, only two have died; one of these I refused to do anything for except in a medical way, as it was too late for operative measures. In both cases the patients had punctured the uterus, the one with a celluloid penholder, the other with some instrument of torture, the character of which could not be ascertained. Both cases were in extremis when seen, but the last case I promptly curretted, the patient dying about sixteen hours later from septicemia.

The treatment would better, perhaps, be considered under three heads: Threatened abortion, inevitable abortion, and incomplete abortion. By far the larger number of case of abortion are induced, and we are not called to see them until the inevitable or incomplete stage has been reached. But there are cases where the patients desire offspring, and it is these cases we are called to see in the first stage.

If a case is seen before too great a detachment of membranes has taken place, indicated by the amount of blood lost, the patient should immediately be placed in the recumbent posture, if necessary elevating the hips. Perfect quiet and rest, both mental and physical, must be insured. The patient should not be permitted to rise for any purpose. She should remain in bed until all danger is past, and at each recurring menstrual period should remain in bed a few days. Excitement and excessive exercise must be avoided throughout the period of gestation.

Opium in some form, preferably morphin hypodermatically, should be used at once to insure quiet and control muscular contraction, and repeated as may be necessary. The fluid extract of viburnum prunifolium has been of decided benefit, especially in cases where an atonic condition of the uterus exists. As a rule the vaginal tampon should not be used in threatened abortion.

In inevitable abortion the hemorrhage will be profuse, the os dilated and the membranes presenting; the patient will be having or will have had chills, more or

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less severe, and fever rising perhaps as high as 105 degrees F., dropping to normal as soon as the uterus is emptied. This fever is largely nervous in origin. I have seen it drop to normal after a dose of valerian.

At this stage I would urge the use of the vaginal tampon properly applied. I say properly applied because unless it is placed properly it is useless. The first and most important reason for using it, is that it places the patient beyond any danger from hemorrhage. Several cases, nearly dead from hemorrhage when I reached them, were saved by a prompt use of the tampon; had they been seen earlier a long period of debility from excessive flooding might have been avoided.

There is also less danger of septic infection if the vagina is full of antiseptic material. Again the tampon stimulates uterine contraction, and by retaining the blood within the uterus favors a perfect separation of the membranes and placenta, and permits the easy expulsion of the fetal sac, often with the membranes unruptured.

Frequently upon removing the tampon the uterine contents will be found lying loose in the vagina or cervical canal when they can be removed without difficulty by the finger or with the placental forceps.

My plan for using the tampon is this: The patient is placed crosswise on the bed with her hips near the edge, the feet and legs supported by two chairs. The external genitals are thoroughly scrubbed with soap and creolin solution, the vagina also douched and scrubbed with the solution. Thoroughness in cleansing and protection from unclean beds is favored by the use of the rubber obstetric pad. Without this enough water can scarcely be used. I carry with me always a supply of iodoform gauze and absorbent cotton in ounce packages. Four strips of gauze about three inches wide are tightly packed on either side, in front and back of the cervix.

One point that I would lay stress upon is to pack a strip of gauze in the cervical canal, thereby assisting dilatation. Then a strip of cotton about twelve inches long is torn from an ounce package and soaked in the creolin solution, squeezed dry and torn in half, lengthwise, the two long narrow strips are then packed upon the gauze and dry cotton enough to thoroughly fill up the vagina is used. If there has been a good deal of hemorrhage a pad tightly bound upon the vulva is also used. If the patient cannot urinate the cotton immediately pressing upon the urethra can be removed.

This tampon is left for twenty-four hours with perfect security as to the welfare of the patient. She should be informed, however, that her pain will be greater for awhile. If this does not bring about the desired result, another tampon may be applied and another twenty-four hours supervene, when, if the uterus is not emptied, it should be done at once manually.

In complete abortions, or the expulsion of the fetus and retention of the whole or a part of the placenta or membranes, constitute by far the larger number of cases physicians are called upon to treat. The treatment of these cases depends upon the condition they are in when first seen. If about the third month, after the placenta is fully formed, and there is no fever nor odor to the discharges, the tampon may be tried, and sometimes the uterine contents will be found loose in the vagina upon its removal.

Prior to third month and whenever there is any fever or fetor no time should be lost, but the uterus should be cleaned out under full antiseptic precautions, followed by irrigation and gauze packing. This should be done, as a rule, under ether anesthesia for the reason that better control of the patient is had and the work can be done more thoroughly. There is also less liability to peritonitis, should there be an old pelvic inflammation present.

The packing should not be left longer than twenty-four hours, because by that time its meshes are filled with debris and it no longer acts as a drain, but becomes an irritant, exciting uterine contractions and causing pain. If there is present a relaxed, flabby uterus the packing should be renewed to stimulate involution, otherwise it is not necessary. Antiseptic vaginal douches twice daily should be used at a temperature of 110 degrees for their stimulating as well as cleansing effect.

I have taken patients in a badly septic condition with the uterus filled with foul smelling decomposing placental tissue,

which had been present for weeks, temperature running high, and after treating them by the methods described above, left them with an odorless and clean uterus, and temperature and pulse rapidly descending to normal. I have noticed a drop of over 2 degrees after the operation was finished.

It is important for the patient to remain in bed as long or longer than at full term.

My experience justifies me in the statement that not a single case of abortion should result fatally if seen before infection has taken place, or that such have proceeded beyond the reach of help, if treated according to the method outlined. A large majority will also escape the after horrors of chronic metritis, endometritis, salpingitis and ovaritis.

With reference to ergot, it is a well known fact that it acts powerfully on unstriped muscular fibre. It should not, therefore, be administered in abortion, for the reason that it causes tetanic spasm of the uterine muscle and tightly contracts the cervix, thereby locking the door which is important to leave open. This has been repeatedly demonstrated to me in cases that have fallen into my hands. It is sometimes of benefit in small doses in uterine inertia, but there are other drugs which will do the work quite as well and safely. Among these quinin is perhaps the best. After the uterus is empty, it is always justifiable to give ergot after labor at term, to guard against postpartum hemorrhage and to force clots from the uterine sinuses, and after abortion, to insure involution of the uterus.

THE FORCEPS.*

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The perfection attained (in modern times) in the construction and use of instruments to assist the delivery of the parturient woman have signally augmented the resources of the obstetric art. The ancients wer not wanting in inventions for expediting the birth of children, but, unhappily, their instruments were devised solely for the benefit of the mother and with no consideration for the child save to extract it, depriving it of existence, or, perchance, dragging it forth from the womb still living, but a most shocking spectacle of mutilation and distress. The crochet of Celsus continued the model for obstetric instruments down to the fifteenth century, when a happy thought resulted in the construction of an instrument adapted to the security of both mother and child. At the present day, in skillful hands, this may be considered one of the greatest triumphs for suffering humanity.

The great object in the past was to make an instrument that might seize the head and extract it without inflicting a wound, and yet with all our acquired knowledge of the subject and our most approved instruments, damage is often done, wounds occur and the instrumental obstetric case finally enriches the gynecologist. Surely this condition of affairs must be brought about by the use of the forceps when not indicated, by a disregard for the contra-indications, or a perversion of their use when applied.

Damage may, of course, be done by the unskilful application of the forceps. Skill in introducing them can only be acquired by practice on the manikin or at the bed side. The rules for the application of the blades are so thoroughly laid down in our text books that it will not be necessary to repeat them. I believe, however, that the lithotomy position is the best for their introduction, even if the English method of the left lateral is used for delivery, Cameron claiming this to be easier and safer.

The instruments and everything coming in contact with the parturient canal should be rendered aseptic. If creolin solution be used no lubricant for the instruments or hands will be necessary. Bladder and rectum should be emptied before beginning the operation, and the

* Read before the Delaware County Medical Society, May 14, 1897.

external genitals thoroughly washed and scrubbed, following the washing with a hot antiseptic douche.

Most authorities recommend anesthesia unless specially contraindicated, but I agree with Dr. Ulrich† in preferring to apply the forceps without an anesthetic, for, although it may render the operation more difficult, still it is a great safeguard against injuring the maternal soft parts to have the woman conscious so that she may tell you if she is being hurt. The proper application of forceps I have not found to be associated with pain to any extent. If the woman complains of much pain from their introduction, they are pretty sure to be doing damage and should be withdrawn.

Some of the indications for the use of the forceps are:

1. Deficient expulsive force, as uterine or abdominal inertia, or when acute or chronic diseases of the mother render the ordinary forces insufficient, as typhoid, heart disease, phthisis, etc.

2. Undue resistance, as minor degrees of contracted pelvis, abnormal rigidity, or large fetal head.

3. Maternal life endangered, as in rupture of the uterus, hemorrhage, eclampsia and heart clot.

4. Fetal life endangered, as sudden death of the mother, prolonged pressure on fetal head, prematurely detached placenta, compression or prolapse of the cord, fetal heart sounds less than 100 per minute.

5. When the head fails to recede after contraction of the uterus (in this condition undue pressure is being made on the soft parts of the pelvic canal).

6. "As a general rule they should be applied when the head during the second stage of labor has been stationary for two hours." (Hirst.)

The contra-indications are:

1. Head not engaged in the superior strait. Exception—to bring down the head as a tampon in marginal placenta previa.

2. Undilated os. Exception—When the fetal or maternal life is threatened it is allowable to apply them to the partially dilated os.

3. Unruptured and unretracted membranes. (If the membranes have not retracted, they may be grasped by the forceps and placental detachment occur.)

4. Should not be employed unless the head is of average size. (If the head is too large, as in hydrocephalus, or too small, they are apt to slip and lacerate the soft parts.)

5. Should not be applied to a decomposing fetus or a perforated head. (The perforated head can be better handled with a cephalotribe.)

6. Should not be employed when the disproportion between the head and the canal is too great.

7. Should not be employed when there is any mechanical obstruction on the part of the pelvic canal which will prevent delivery without unusual force being used.

8. Should not be employed in Carcinoma of the cervix.§

Uses and functions of the forceps:

The forceps may be used as tractors, levers, rotators and compressors. Baudelocque's experiments ought to dispel any lingering disposition one might have to regard the forceps as essentially a compressing instrument.‡ Their use as compressors is fraught with much danger to the child. It is only necessary to use sufficient compressive force to seize the head solidly and to prevent slipping of the blades. I think it ought to be established as a principle in obstetrics, that when there is not enough space (after moulding) for the descent of the head without forceps, there cannot be produced a due proportion by merely squeezing the head down to the required dimensions with such an instrument without doing harm. The squeezing of the head merely to compress its dimensions must be condemned.

If a good model of forceps is used, and if traction is made properly, the head should rotate normally as it descends. If the handles are held too firmly, the head is apt to be dragged through without rotation. If the instrument is grasped at the shoulder, near the lock, the handles being left comparatively free, the forceps will but seldom interfere with the natural mechanism of rotation. Artificial rotation to correct faulty position is dangerous, even with the straight forceps, and in skilled hands.

† Medical and Surgical Reporter, March 6, 1897, page 317.

§ (Grandin and Jarman), *Obstetric Surgery*, p. 76.

‡ *L'Art des Accouchements*, Part 4, Chap. I.

Even if not specially intended, on account of the character of the instrument, some leverage is acquired by ordinary traction. Many authors hold that any form of leverage to be obtained by the forceps is not only objectionable but absolutely harmful. The use of the swinging or pendulum motion during traction is dangerous, although if the instrument be swayed violently from side to side delivery may be effected rapidly. The blades pivoting first on one side and then on the other side of the pelvis, the maternal soft parts will surely be bruised between the forceps blades and the pelvic walls. Without doubt a very slight up and down motion will facilitate the extraction, but it must be borne in mind that at the same time the free ends of the forceps may be plowing into the maternal soft parts. Some operators use the forceps as a lever of the first class, obtaining to some degree a form of axis-traction, using one hand as a fulcrum at the lock. This method I have used with advantage.

The forceps are primarily and essentially tractors. To be a good tractor the instrument must have a good grasp of the head and the blades must not slip or spring apart when traction is made. There will always be a certain amount of compression and leverage according to the direction and amount of force employed. Direct traction, when properly applied, carries little danger to the mother and will certainly be successful in those cases where the forceps are indicated. The amount of force applied is under the control of the operator. It may be much or little, continuous or intermittent, as he wishes. It is an unfortunate condition that traction cannot be made without some compression. This being the case, to avoid undue compression, the traction should be made intermittently with the pains when present and at corresponding intervals when absent. From time to time the instrument should be unlocked and the handles slightly separated, thus liberating the fetal head. Too great compression may also be avoided by placing a folded towel between the handles. Do not tie the handles or use any of the screw devices as they cannot be liberated with sufficient rapidity in emergencies.

Excessive force is never necessary if the direction of traction is proper. To effect delivery with a minimum of force should always be our aim; to do this traction should always be made in a line parallel to the axis of the parturient canal. I believe that excessive force is used much more frequently than is generally supposed. Hirst states that he constantly sees severe injuries to the maternal soft parts from too much force being used in the extraction of the head by forceps and he has in his possession a pelvis every joint of which is sprung apart by the same cause. Any traction which cannot be made with the arms and forearms of the operator is excessive, but if the line of traction be faulty even excessive force may fail to effect delivery. Prof. Thomas, of New York, in his lecture on obstetrics says: "The most harm done with forceps is due to continuous traction after their application, and next to that, traction in the wrong direction."‖

Axis-traction is often most necessary to safe delivery, especially in the high operation, although it is not used at all by many physicians. If the Tarnier's forceps, on account of bulk and weight are not desired, at least every obstetrician should be furnished with some adequate means of making axis-traction, such as the axis-traction rods of Reynold. These can be fastened to any ordinary modern model of forceps. They are light, take up but little room and are inexpensive. By the use of axis-traction less force is required; traction may always be made in the proper axis of the pelvis, and rotation of the head is not interfered with.

A goodly proportion of the cases in which the forceps are used in general practice I believe to be because of the rigidity of the soft parts, to overcome which the expulsive forces have been exhausted in vain effort. The vagina is not dilatable, or the perineum will not yield, or the labia will not elongate, or all these may be combined to oppose delivery. In these cases nature should not be urged beyond her powers, lest injury be done where the accoucheur are most solicitously endeavoring to do good. By too great exercise of strength, great risk of rupturing these organs is incurred. Better refrain from the use of the forceps, although on other grounds indicated, than to attempt to hurry delivery by sudden and violent di-

‖ Medical and Surgical Reporter, May 1, 1897.

latation of the external organs, which, under these circumstances, are often more frangible than dilatable.

As a rule remove the forceps so soon as the head reaches the perineum. Duke, of Dublin,** suggested a belt to be attached to the operator's waist and to the axis-traction forceps, so as to increase his pulling power. This he used as an alternative to craniotomy. With this contrivance he could get a power (measured on the manometer) of 168 pounds. Surely with the pelvimeter for proper diagnosis before labor, and in the light of the modern obstetric operations, as symphysiotomy, all such measures as this must be condemned.

The mere introduction of the forceps into the vagina sometimes excites increased uterine action by reflex irritation; this is the so-called dynamical action, but it is only an occasional occurrence.

The most proper view to take of the forceps is that they are a substitute for normal labor pain, supplying the want of it when wholly absent, or aiding it, when its force is insufficient. They should never be applied as a routine practice or to suit the convenience of the physician, but after careful diagnosis, with a definite object in the individual case, if not in any way contraindicated. Excessive force should never be used; impossibilities are not to be expected from them, and in all cases where they are impractical, we should resort to other measures.

The author wishes to acknowledge the writings of Hirst, Meigs, Luck, Playfair and Cameron.

** *Annual of Universal Sciences*, Vol. II, Section J, p. 40, for 1892.

CURRENT LITERATURE CONDENSED.

Multiple Paralyses Following Measles.[1]

Jos. P., aet. 2 years 8 months, with with family history negative with exception of frequent rheumatic neuritis in case of his mother, had been free from any disease whatever until this attack, which presented the characteristic symptoms of measles and seemed, up to the fifth day, to be a simple but vigorous case. On this day there was present evident dysphagia, hyperesthesia and pain on movement. These all increased for several days and then gradually subsided, but were not absent until the fifteenth or sixteenth day of the disease and were then followed by rapidly increasing paralysis and some anesthesia. The temperature on the fifth day registered 105 degrees F., continued between this and 103 degrees F. until the ninth day, when gradual defervescence began, the normal being reached on the seventeenth day. Patient was very irritable from the fifth to the fifteenth day, crying at every mouthful of food or medicine or on the slightest touch of his skin or movement of his head and limbs. He swallowed his food slowly and with evident pain. He spoke to no one from the fifth to twenty-eighth day after disease, at first possibly for fear it would cause pain, later because he found it impossible. The nose and throat were examined repeatedly for lesions but none but those of acute catarrhal pharyngitis and rhinitis were present. The urine was febrile and showed a trace of albumin but no casts on the fifteenth day. Mind was clear with exception of delirium present when temperature was upwards of 105 degrees F. Medicines used were tr. aconite root, spts. aetheris nit., neutral mixture, phenacol.

By the twenty-second day it was observed that he had not grown in strength as one would have expected with the establishment of his appetite and other functions, but, as his mother put it, "has grown weaker as he grows better." As he lay upon his couch his head was found to be on one side or the other, the arms and legs remained where they were placed and when raised the hands and feet dropped, but he did not cry when handled as he did when feverish. He tried to

[1] Dr. S. W. Morton, before the Philadelphia Pediatric Society, May 11, 1897.

speak but could utter only an unintelligible whisper—gave his assent by a nod of the head. When placed in a sitting position his head fell upon his shoulder and his trunk muscles were too weak to support him.

By the thirty-first day he had grown still weaker. Legs, arms and neck were wasted. He could flex knees slightly and moved hands slowly. Grip feeble and uncertain. Knee-jerk was abolished. Muscles of arms and legs did not react to faradic current. Did not seem to have usual pain on its application. Mind perfectly clear. Could say rather indistinctly, "no," "yes" and "papa."

At the end of the seventh week he could walk if held under arms, but could not hold his head erect. Hands and feet still dropped when the arms and legs were held out. Grip still quite weak and uncertain. When he walked he lifted his feet high in walking as is done by an infant beginning to walk. Knee-jerk was still absent. Faradic current produced mild contraction in flexor muscles of legs and arms but scarcely a tremor in the extensors. Two or three jerky movements of the head were necessary in order to fix his vision upon an object requiring him to turn his head. Speech was still slow and indistinct, but few words having been added to his vocabulary. He swallowed his food slowly. While his appetite, sleep, etc., continued good, he gained power in speech, arms and legs very slowly, especially his speech, so that four months after the measles began his condition was as follows: General appearance that of perfect health, but on his feet he was uncertain, often staggering as he ran. Grip still weak and uncertain. Speech but little improved. Patellar reflexes established. All muscles of arms and legs react to faradic current. He was slow in swallowing as well as in speech. Could not speak so clearly as his younger brother.

Improvement continued but was very gradual and slow, so that at the expiration of one year from the time of attack of measles he was till weak, unsteady in his gait and tired much more easily than his little brother. His speech was still very defective. Could not articulate so well as his little brother nor nearly so well as he could before his illness began. Still could not fix his gaze upon objects requiring a turning of the head without the jerky movement referred to.

In substantiation of the diagnosis of measles the fact was mentioned that his two brothers came down with measles from sixteenth to twentieth day of his disease.

The following facts were noted as unusual: The temperature did not subside as is usual with the fading of the eruption, speech was absent from the fifth to the twenty-eighth day; there was hyperesthesia and muscular soreness followed by anesthesia and paralysis, and all these in a case of measles otherwise not violent or apparently complicated.

The possibility of mixed infection was considered. Diphtheria was eliminated by the absence of false membrane and the remoteness and slightness of the albuminuria, also by the time at which the paralysis began.

The author expressed the opinion that it would conduce to accuracy of diagnosis if all cases of infectious fevers, presenting unusual symptoms, were made the subject of bacteriologic examination from the throat and nose.

The elimination of scarlet fever from the case was looked upon as much more difficult, but its decided improbability was based upon the absence of any variation in the rash from that of an ordinary attack of measles. The absence of alteration in the character of desquamation, the absence of the strawberry tongue and the presence of only a trace of albumin which would have been, probably, much increased by the presence of scarlet fever.

Influenzal contamination was thought of but considered improbable because of the absence of more pronounced catarrhal symptoms and catarrhal complications, as, for example, pneumonia.

Rheumatic neuritis was considered a probable complication, especially because of the frequency of this disease in the child's mother.

The most plausible solution was thought to be that there was in this case a polyneuritis the result of a poison, generated in the system of all cases of measles but acting in this case upon nerves especially predisposed, for, granting this, it became easy to account for the prolonged fever, dysphagia, hyperesthesia, muscular soreness, anesthesia, loss of reflexes, pa-

ralysis and loss of power of articular speech.

Reference was made to Leyden's brochure upon "Multiple Neuritis," published in 1880, in which he is said to have classed such cases as "Infectious Multiple Neuritis," saying: "The infectious form follows acute infections diseases, such as diphtheria, typhoid fever, small-pox, scarlet fever and measles, also pneumonia, pleurisy, septicemia and erysipela."

Osler was quoted as classifying these cases as "Post-febrile Polyneuritis," and as saying, in the American Text-Book of Medicine, that "following typhoid fever, small-pox, measles and scarlet fever, a neuritis may be limited to the nerves of the legs producing a paraplegia or, in some instances may cause widespread loss of power and rapid wasting so that the cases are very often regarded as acute or subacute myelitis."

H. C. Wood was said to consider these cases as "post-febrile multiple neuritis," and the following quotation taken from Wood and Fitz's Practice of Medicine: "The neuritis which follows exanthematous diseases most frequently attacks the legs and is not rarely limited to the nerves of one leg."

Rotch was quoted as saying that paralysis following measles is a rare sequel and that it is generally paraplegic in type.

A Clinical Report of a Case of Infantile Scurvy.[2]

Male, 10 months old, colored, living amidst most uncomfortable hygienic surroundings. Fed on condensed milk and boiled cow's milk for first week of life. Then, until brought for treatment, exclusively upon oat-meal gruel, a period of 6 months. Was fretful and tender to touch, with bleeding and swollen gums for two weeks before admission. When brought to dispensary child had bleeding and swollen gums (over incisor teeth); swelling of both forearms above wrists and of both ankles. Handling of those parts caused screaming. No ecchymoses. Symptoms yielded quickly to orange and beef juice and fresh cow's milk. Attention was called to rarity of disease among dispensary patients, the writer having found but 20 instances in a collection of 91 American cases, and to the increasing frequency of the affection, which seems to be coincident with the introduction of sterilized milk and the enormous number of proprietary foods placed upon the market during recent years.

[2] Dr. D. J. Milton Miller, before the Philadelphia Society, May 11, 1897.

Heredity and Insanity in Idiocy.[3]

Physical characteristics, those distinguishing the human species for instance, are transmissible by inheritance.

Knowledge, genius, culture, being dependent on the influences of education and environment on the individual, are not transmissible; but what may be termed mental receptivity and degrees of cerebral evolution and development may be inherited. Psychic qualities are not necessarily an inheritance, as they require favorable surroundings and circumstances for their growth and development.

Insanity, as a disease, is not transmissible by inheritance, but may be acquired or evolved, especially where a neurotic heredity exists as a basis.

A neurotic predisposition is transmissible by inheritance, but there is no absolute rule that it will be transmitted in every case.

The inbreeding of neurotic temperaments is most conducive to the creation of a neurotic heredity.

Idiocy and imbecility may be the result of certain defects having origin in consanguineous marriages, in pre-natal conditions, accidents, arrested cerebral development, infantile meningitis, tuberculosis, and lack of potency on the part of one or both parents from unexplained causes.

Premature closure of the sutures in the cranial vault has also been recognized as a cause of imbecility, and for the relief of this condition linear craniotomy has been proposed and performed, without, however, a gratifying amount of success.

Neurotic instability may be transmitted by inheritance, yet it is capable of exerting only a potential influence in the later development of mental disorder, which may be evoked by social condition, environment, or pathological changes in the cerebral cortex. Imbecility and idiocy may, however, result from defective cerebral development, or pre-natal disease.

[3] Chapin, in the *Medical Review*.

Note on the Statistics of Carbolic Acid Poisoning.[4]

In a paper on the statistics of carbolic acid poisoning, contained in the December number of the *Medical Chronicle* for 1896, it is stated that the number of suicidal deaths due to carbolic acid in 1895 would "probably show a geometrical augmentation corresponding in magnitude with that of the preceding year." At the time that this statement was made the annual report of the Registrar-General for 1895 had not yet appeared; it has since been published, and it amply corroborates the above-quoted forecast. In 1893, 117 persons (60 males and 57 females) poisoned themselves with carbolic acid; in 1894 the number had increased to 167 (32 males and 85 females); and in 1895 the total reached 224 (114 males and 110 females).

In the paper, which deals with the statistics of the decennium 1885 to 1894, it is stated that carbolic acid stands first in the list of poisons selected by women who committed suicide during that period, and that it ranks second as a suicidal poison among men; in the decennium 1886—1895 it heads the list of suicidal poisons with men, as well as with women. Since 1890, when the total number of suicides due to carbolic acid was 43, the number of deaths thus caused has increased year by year, until at the end of five years it is augmented more than five-fold.

In 1895, 347 males committed suicide by poison; of these 114 resorted to carbolic acid, leaving 233 to be apportioned among the 25 remaining poisons which were used; apart from a number of suicides by poison in which the kind of poison is not specified. In the same year 233 females committed suicide by poison; of these 110 resorted to carbolic acid, leaving only 123 for the 21 remaining poisons which were used; again apart from a number not specified. It will thus be seen that *one-third of the males and very nearly one-half of the females who poisoned themselves in* 1895 *did so with carbolic acid.*

These figures speak eloquently in favor of some restriction in the sale of carbolic acid to the general public. Surely the time has come when a poison which accounts for 224 suicidal deaths out of a total of 580 caused by poison in one year —a proportion coming within measurable distance of one-half—should be placed out of the reach of those who, probably for the most part only for the moment, estimate the value of life so cheaply as to throw it away in a fit of anger or of maudlin intoxication.

It is not my purpose again to go over the grounds for believing that, although restriction in the sale of carbolic acid would not save the equivalent of every life that is taken by that poison under the present state of the law, it undoubtedly would save a very large proportion of lives thus lost. When consideration is bestowed on the fact that in 1895 the number of suicidal deaths from opium—the poison which stands next highest to carbolic acid as a suicidal poison--amounted to only 68, carbolic acid accounting for 224, it must be allowed, for reasons previously given, that facility of access to a poison is a direct incentive to the suicidal act.

[4] Dixon Mann, M.D., F.R.C.P., in the *Medical Chronicle.*

Tapping Extraordinary.[5]

The propriety of tapping the pericardium has often been discussed, and opinions are usually about evenly divided thereon, which means that the benefit to the patient is open to question. On the other hand, it is not fair to debit the operation with the entire responsibility for a high subsequent mortality, seeing that the pathologic conditions which pave the way to, or are associated with, pericardial effusion are of themselves always grave, and often fatal *per se.* In the latter event, paracentesis of the pericardium is of the nature of a palliative procedure, which cannot save but may relieve.

A case of hemo-pericardium recently brought before one of the medical societies, and reported in our columns, belongs to a somewhat different category, for no one, we surmise, would call into question the urgent and imperative necessity of averting a danger too obvious not to be impressive. A young man engaged in playing football, an occupation possibly as dangerous as armed participation in an African predatory ex-

[5] *Medical Press and Circular.*

pedition, received a kick over the region of the sternum which doubled him up, but he nevertheless managed to go on playing for twenty minutes or so, when, feeling faint, he conveyed himself home, where he forthwith fell into a state of collapse. He presented the curious phenomenon that the heart appeared to be beating twice as fast as the pulse.

Gradually the area of heart dulness extended, while *pari passu* the breast sounds on the left side became fainter and fainter until they became inaudible. Then even the heart sounds faded into silence, and the patient's condition became one of extreme gravity, justifying the most gloomy prognosis. At this juncture an enterprising surgeon cut down on to the pericardium and incised it, giving exit in the course of two or three hours to six pints of blood, so pure as to clot firmly within the basin into which it was poured.

Not the least surprising part of the case is the fact that the patient recovered, so to speak, "without turning a hair," and was produced by the operator at the meeting to vouch for his veracity. He no longer cherishes any particular liking to football as a pastime, but, as far as one could judge from appearances, he was fully able to join in the fray once more.

Globus Hystericus.[6]

This is a disease without pathology or histology; it is an affection of no particular part of the human body, and yet all parts are involved; no one has ever been known to die of it, and yet it is worse than death to experience; it is essentially a woman's disease, yet men of weak virile powers sometimes have it. In the first attack the patient is afraid she will die, and so are the attendants; in the second attack she is afraid she won't die, and the attendants are afraid she will; in the third the patient is afraid she won't die, and so are the attendants. It is one of those times when the Old Man with his scythe would be a welcome visitor.

A council of doctors has been had, the relatives to the third generation have been assembled, the preacher is there with his prayer-book, the room smells of all sorts of drugs, a soft mellow light is admitted to the room, children are whispering in the back kitchen, and shuddering with expectation; silence has fallen upon the whole company. Now is the time the patient ought to die, and it would certainly be permissible and good-natured if she would do so. But she doesn't. Instead, she lies, panting for breath, and in a few hours gets up and eats a meal that would make a tramp turn pale. The patient is ashamed, the friends are mystified, the doctor angry, the preacher disappointed. The children begin to play again, light is admitted to the house once more, birds begin to sing, all Nature goes on again as if nothing had happened.

This pleasant state of things continues for about two days, when another attack makes its appearance. It starts somewhere below the navel, spreads steadily like a great balloon, inducing a suffocating, sinking sensation, gradually extending through the thorax; it finally lodges in the hollow spot just above the top of the breast bone, where it proceeds to choke the patient in a most aggravating way—there are no external symptoms of choking, but it is just as hard to bear. She can and yet she cannot breathe; she is dying yet she cannot die. But this time there is not an ante-mortem funeral—only the doctor is sent for. No one pays the poor sufferer any attention; she is only "having another hysteric." And there the poor creature lies, gasping, shivering, trembling, throbbing, shuddering and doing a thousand things that no speech or language can portray. Death would be a "picnic," strangulation a recreation, suffocation a holiday, asphyxiation an amusement, in comparison to this *seance* with globus hystericus.

The poor, quivering, frightened, panting creature, how I pity her—the cold beads of sweat on the brow; the pallid, ashen lips; the contracted pupil; the goose-pimples—all attest to terrible suffering that cannot be explained. It is not pain; it is not an ache, or a smart, or prick, or stab. It is just one all-round, omnipresent, unpronounceable, effervescent misery that beggars language and defies description.

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[6] CARE, in *Cincinnati Lancet-Clinic.*

The Necessity of Using Pure Drugs.

It would seem almost unnecessary to call attention in this journal to the necessity for the physician who prescribes his own medicines, or who permits the pharmacist to dispense them for him, to use the purest and best medicinal agents which the drug market can possibly afford; yet we have recently come in contact with a number of instances where physicians or pharmacists, with a false idea of economy and business foresight, purposely purchased low-grade crude drugs, or medicinal preparations, thinking that thereby they would be pecuniary, if not moral, gainers. To us such an attempt seems to be a manifestation of the most short-sighted policy. The physician's reputation depends very largely, if not entirely, upon the success which he has in the treatment of patients who come to him for his skill, and in many instances this skill in diagnosis and therapeutics is entirely counteracted by an impure or worthless drug.

The use of such preparations by the physician can be summarized in a few poor results bring a poor reputation; and poor results bring poor reputation; and poor reputation brings little money.—*Therapeutic Gaz.*

How Shall Physicians Protect Themselves?

There has been much discussion of late among our physicians, in local societies and otherwise, as to the means of protection against unjust and malicious suits for malpractice, instituted by irresponsible parties, and conducted ordinarily by impecunious attorneys "upon shares," or, to speak a little more politely, "for a contingent fee." The discussion has apparently pretty well established the fact that it is impracticable to attempt the passage through the legislature of an act requiring the plaintiff to give bonds for the payment of costs in event of failure to convict, as such an act would, the attorneys tell us, work great hardship to poor but deserving people in many instances.

It is, perhaps, not as widely known as it should be that most of the suits brought are initiated chiefly with the idea that the doctor attacked will compromise rather than stand suit, for it is well known that the victory for the doctor means in reality only that he has not suffered quite so severely in the battle as he would have done if defeated. He is damaged in pocket, in feelings and in reputation in either event. In a recent suit for a large sum an offer to settle for $300 was made by the plaintiff's attorney.

A plaintiff knowing that he had no real case would hesitate more in suing a member of an association which would furnish him financial and moral support than in the case of a physician not so protected.

The best method of all of discouraging unjust suits against the members of our profession lies in the performance by every physician of his plain duty, when asked to appear against another physician in court. Without the support of some medical man no suit will be brought that has not a proper foundation in wrongdoing of some kind by the physician attacked. We should work diligently to bring all physicians into the fold, where they may feel the ennobling influences of association with the best members of our guild, and be led to see the suicidal policy of "going it alone," without in any way helping or being helped by an organized profession.—*Colorado Med. Jonr.*

The Cause of Death.

The facility and accuracy with which physicians who are called in cases of sudden death diagnose the cause of death is a source of wonderment to the suffering public. The worst of it is that everything goes when the doctor hath said it. There are three causes of death which are seldom questioned—heart disease, apoplexy and, when the doctor wishes to be particularly learned, heart failure. It is seldom that a person dies who does not have heart failure. The question is—Could the heart do anything else than fail if the party died? The fact is that, without an autopsy, and in some cases chemical analysis, it is next to impossible to state with accuracy the cause of sudden death. Often the snap judgment on the part of the physician is a bit of professional presumption. A decision of this kind should never be made without a deliberate investigation or consideration, and after a post-mortem if necessary.—*Med. Examiner.*

Father Kneipp.

Father Sebastian Kneipp, the priest whose water cure, or grass cure, made him famous, died at Woerishofen, Bavaria, on June 17, in the seventy-sixth year of his age. His fame came from his original method of treating disease by means of cold water applied in a variety of ways. He practiced the cure a lifetime, although it came into vogue only in the last five years. He was born in 1821, and after leaving school worked as a weaver until the age of twenty-seven, when he began to study medicine and theology. He was in ill-health. In a delirium of fever he thrust his feet through ice in a pond, found he was much better for the shock, and so began systematic experiments along this line.

He was admitted to holy orders and went to Bavaria, where he earned the love of his neighbors and the mountain folk, whom he had cured by cold water treatment. His fame in time spread over the world, and in large numbers people came to him for treatment. Making use of methods ascribed only to charlatans, he was no charlatan. It was amusing to see some of the notables of Europe in frock coats and white cravats walking barefoot in the dewy grass. This barefoot walking became the best known feature of the system introduced by Father Kneipp. His belief was that most illness was the result of the luxury of modern living, and his aim was to improve the circulation and tone up the system. He made use of local bathing and applications, together with steam baths which were sometimes medicated with herbs. To stimulate and restore the circulation, he ordered barefoot walking and cold douches. He made it a point always to see patients himself, and he made no charges for his services. Contributions from patients he used for parish work.

In recognition of his work the Pope bestowed on Father Kneipp an honorary office, which carried with it the title of Monsignor. In 1894 he was called to Rome to treat the Pontiff, and it was announced, after some time, that the Pope's health had been restored. Kneipp societies have been established in most countries of the world. The method has made some headway in even the United States. —*Scientific American* (*condensed*).

The Wages of Uncleanliness.

The terrible plague raging in India is claiming victims by the thousands. In America the people shudder at the thought of yellow fever and small-pox, which is nothing in comparison to India's terrible disease. Remember, the prime cause of this plague is filth, unsanitary conditions. People who fail to keep themselves and surroundings clean always pay the penalty in pain and death. Promptly abate everything of a disease-breeding nature, and you will not only prevent sickness, but also death.

The bubonic plague, which is so terribly violent in Bombay, India, is regarded as the most destructive of all known epidemics. The percentage of fatalities is rarely under 60 per cent., and often 90 per cent. of those attacked die. The symptoms generally resemble those of other severe fevers. Great weakness and mental disturbances occur, and are followed by coma and death. During the early stages of the disease dark lumps, or buboes, appear on the skin, caused by subcutaneous hemorrhages, and there are glandular swellings in various parts of the body. In the latter stages of the disease carbuncles are developed. No specific treatment for the plague is known.—*Metropolis.*

Sandow's Example.

The example of Sandow is not altogether a desirable one for our boys. To be well developed and to become a strong man is certainly a worthy ambition for any boy but when carried to the extreme of producing such bulky muscles as Sandow exhibits the example may be most pernicious. Dr. Lydston says that Sandow is confronted by two dangers. First, death at an early period after complete suspension of his athletic strain; and, second, death at middle age, or soon thereafter, from a continuance of his work. So soon as he rests from his muscular exertions he will not be able to bring about a corresponding involution of his heart and lungs. Disuse means decay, and these undeveloped organs will be very likely to undergo a rapid degeneration. Sandow is a wonderful man, but his example is pernicious. His system of muscle-building is dangerous.—*Good Health Magazine.*

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PHILADELPHIA, SATURDAY, JULY 10, 1897.

EDITORIAL.

MEDICAL TEMPERANCE.

Probably no chemical substance, except the mechanically useful metals and those whose comparative rarity and usefulness have made them "precious," has exerted so direct an influence on the social condition of the human race as has alcohol. An elaborate etiquet concerning its use has prevailed for centuries and, more recently, society has been stirred to its foundations by an uprising against the use of alcoholic beverages. No other philanthropic reform has been carried on with the bitterness and tenacity of the temperance movement. No other modern organizations not primarily due to political or commercial motives, has made itself so manifest in influencing society at large as the various temperance unions. The common use of terms has been followed in applying the word temperance to an aim which is absolute and unqualified, if not properly intemperate, as its enemies declare. But the whole subject abounds in paradoxes. The question is not primarily one of politics, yet it has been brought into political history and has, locally, become a political power. It is essentially altruistic, yet it has been turned to selfish ends and its best argument is the selfish welfare of the individual.

Not to enter into a review of the temperance movement, it is, nevertheless, interesting to consider it in its relation to the medical profession. Alcohol has long been known as a drug of the highest utility. Indeed, until the most recent years, it has almost led the list of all pharmacopeias. Considered in this light, the medical profession has dealt with alcohol as it has with many matters of hygiene. Most of us affect indifference to the rules of health which we lay down for others and probably eighty or ninety per cent. of us, while in health and without any therapeutic indication, imbibe alcoholic beverages as we would not think of using digitalis or aconite or any other drug whose

therapeutic use is fully established but whose toxic powers are also well known.

An analogy has been drawn to the use of coffee, tea and tobacco, but we must remember that there are certain differences in degree so marked as to constitute, for all practical purposes, a difference in kind. For instance, the man who appropriates a match or tooth-pick or pin can scarcely be placed in the same category with one who takes without purchase, a watch or a horse. The toxicity of caffein and nicotin is so mild, in the doses possible through the drinking of tea and coffee or the smoking of tobacco, and the effects are so purely personal and so little likely to be followed by crime against others, that no defense for the use of alcoholics can reasonably be based on the argument of analogy.

A very close analogy may be drawn between alcohol and morphin or cocain, all being seriously toxic, all tending to produce drug-habits and all—when taken by habitues—producing somewhat similar symptoms of intoxication and degrading the moral nature of the individual. Thus, the physician who uses alcoholics, considered as a physician, apart from the established customs of society, is on exactly the same level as the one who uses morphin or cocain for the mental effect, relying on his power to stop short of the danger line. Certainly, more men do possess the power to use alcoholics "in moderation" than to discontinue the use of morphin or cocain, but examples are common enough of those who have relied on their individual strength and have become drunkards.

The risk of drunkenness on the part of a physician is relatively great and the detrimental effects of overindulgence are disproportionately severe. The lawyer or business man can almost certainly count on the night-time for "sobering up," the doctor may be called upon for his most important duty while unable to give it proper attention. The army officer, even though interrupted by professional demands when he should be recovering from a debauch, can rely on the division of responsibility among his comrades and on the leniency due to a pretty well established precedent. The physician, however, has no such division of responsibility and can look for no consideration at the hands either of rivals or of his injured patients. This rule is subject only to the occasional exception of the favorite physician of a rural community which "would rather have Dr. A. drunk than any other doctor sober."

There is another form of drunkenness which the temperance advocates rarely allude to and which, doubtless, few of them understand. We allude to the chronic befogged condition of some men who are never quite free from the influence of alcohol and who are still invariably able to walk straight, to maintain a dignity of demeanor and to perform their various duties in a perfunctory manner. Some quite successful physicians have illustrated this phase of alcoholism.

It is needless to dwell on the pathologic changes produced by alcohol, either in its acute or its chronic manifestations and we purposely avoid and reference to questions of morality. Of late, a decided sentiment against the use of alcohol has grown up among the medical profession, aside from those influenced directly by more or less fanatical temperance advocates. Physiologic experiments have apparently demonstrated that the action of the brain and nervous communication with muscles are slowed by alcohol and that the primary, as well as the secondary, action of this drug, is paralysant. One practical therapeutist points out that a man under the influence of a drug is not competent to judge whether he is stimulated or depressed by its action. Clinicians are not wanting, who, starting with a firm belief in the stimulant action of

alcohol, have gradually modified their views till they regard it as of merely transient value or to be used only to dilate arterioles, or who even go so far as to declare that it is always depressing and therefore contra-indicated in the great majority of cases in which it has been advised for internal administration.

All of these considerations demand the practical attention of medical men, not from the frenzied attitude of the reformer but from a calm and impartial standpoint. The use of alcohol as a drug and its use in beverages are entirely different problems. Prejudices for or against alcoholic beverages should have nothing to do with the use or disuse of the same substance as a drug, while the value of alcohol as a medicine may be disproved or established without in any way influencing the position of a wise man in regard to its use in health. The very fact that a substance has marked therapeutic power is an *a priori* reason for not using it as a food or drink. But there can be no dispute as to the final influence of alcohol on the organism, whatever be the verdict with regard to the primary action of small doses.

ABSTRACTS.

EMBRYONIC MISCARRIAGE.*

There is nothing within the daily routine of our practice that creates so much consternation in the heart of the young practitioner, and oftentimes so much perplexity even to the older and more experienced, as an alarming case of hemorrhage associated with miscarriage. The patient is usually more or less exhausted from great losses of blood before the physician is called in; in fact, the doctor is not called at all until the friends have become thoroughly alarmed; he is expected to act, and that promptly, for the relief of his patient, and all eyes are upon him; if he wavers or hesitates it is quickly observed, and confidence is weakened or lost. On the other hand, if the doctor is fully equipped for any emergency and has confidence in his own resources he will save his patient from further exhaustion and place himself in the position of security, so far as his own reputation is concerned.

Embryonic miscarriage is the period of greatest danger to the patient, and the one that oftentimes puts the practitioner at his wits' end. Not until after the fourth month do the peculiarities which mark the third or fetal stage of miscarriage really begin to exist.

Fetal miscarriage, in the language of Dr. Charpentier, "is a labor in miniature, with placenta fully formed and the ovum definite in structure." As miscarriage at this point of pregnancy has the characteristics of labor at term, it requires no special treatment. Any physician who has had extensive experience in the management of miscarriages and has been observant, must have been impressed by the regularity with which these peculiarities occur during the periods of gestation, oftentimes requiring a wise discrimination in their treatment.

When summoned to the bedside of a pregnant woman suffering from pains about the back and loins, attended with hemorrhage, the opinion is apt to be unqualified that the patient is suffering a miscarriage. A little caution here is sometimes a good thing, for cases of this kind frequently rally and go on to term. I can attest the truth of this in numerous instances, and in several to my chagrin. A case of this kind occurred in my practice last summer.

Mrs. B., at the third and a half month, was attacked with recurrent pains, attended with profuse hemorrhage; the pains seemed to increase in their expulsory effect and a great quantity of clots were thrown off. This stage of things continued for several hours, and I informed the husband that nothing would prevent a

* J. R. DODGE, M.D., in *Annals of Gynecology and Pediatry.*

miscarriage. I was about to apply a tampon when, to my surprise, the pains and hemorrhage suddenly ceased. This case went to full term, and I delivered her of a puny child weighing three pounds. The child is still living, but very small and develops slowly. This was the woman referred to in another part of this paper as having aborted three consecutive times. Instances of this kind occur in the practice of all physicians, and should teach us that unless the ovum is actually extruding from the dilated uterus, under the influence of regular labor pains, we should not be too positive in our prognosis, nor refrain from using every known means to quiet our patient and carry her on to the conclusion of pregnancy. The doctrine would seem to be that while pain and hemorrhage are the usual attendants or precursors of miscarriage, they are not by any means necessarily so. Many women menstruate regularly every month attended with more or less paroxysmal pains during the whole course of their gestation, and yet reach the end safely, so far as mother and child are concerned.

Having exhausted all the resources at our command in our efforts to arrest the threatening symptoms, and it being a foregone conclusion that a miscarriage is certain, our plain duty now is to relieve our patient as quickly as possible consistent with safety. At the latter part of the embryonic period when miscarriage is most likely to occur, the ovum is quite firmly anchored to the mucous membrane of the uterus, which in turn has sent solid epithelial prolongations between the villi of the chorion, thus intimately attaching the ovum to the uterine walls. At this time the afterbirth is well along in its formation, and may be said to form almost a constituent part of the uterus itself. The decidua, which is a uterine product, parts from its attachments with difficulty, a process sometimes most provokingly and tediously slow. During this separation the hemorrhage, usually intermitting in character, keeps up a constant drain, and unless controlled, small pulse, cold extremities and syncope supervene, thus declaringthe dangerous extent to which the process has gone. This condition of things, with no immediate prospect of the expulsion of the ovum, may continue until the patient is actually moribund. It is not well to delay interference until this exhausted state of the system declares itself; indeed, it is positively dangerous to do so. Sometimes we find this condition of things when we arrive upon the scene. To content ourselves with treating such cases expectantly and trusting too much to nature is a criminal neglect of duty. During the first years of my practice I am frank to admit, I was too much inclined to treat my abortion cases in that manner. Inexperience and an indescribable sense of fear are my only defense, and here is the proper place to make "open confession."

For the last ten or fifteen years I have pursued a very different line of treament, and I have rarely had any trouble from losses of blood, either during the expulsion of the fetus or the separation and removal of the placenta. I have come to look upon the tampon as the thing, and the only reliable method of arresting and controlling hemorrhage in miscarriage where the os uteri is undilated. The writer usually places the tampon second or third in the list of important agents to be relied upon in controlling these hemorrhages; but were I to write a treatise upon this subject for the guidance of those less experienced than myself, I should place the tampon emphatically first and use all other means as of secondary importance.

I am quite sure that I have in numerous instances produced incarceration of the ovum by the indiscriminate use of that much relied upon but often abused drug, secale cornutum; that it is invaluable in conditions indicating its use cannot be denied, but to use it empirically should be condemned, for it is liable to produce tetanic retraction of muscular fibre, thus locking up the uterine contents within an unyielding and rigid os. Every physician has encountered this condition of things, but was hardly willing to admit it even to himself that his indiscriminate use of ergot was to be blamed for all the mischief. We have no such fears in the use of the tampon; it is a measure sure and safe, and will rarely disappoint if properly applied. It is of no use to apply a tampon for the relief of hemorrhage unless it is scientifically done; anything short of this will end in failure and disappointment.

An ordinary bivalve speculum will answer every purpose; some prefer Sims's and the lateral position. In placing the tampon much care should be exercised in laying the foundation. The lint or cotton should be firmly packed around the cervix including the posterior cul-de-sac, and pledget after pledget should be laid on until the vagina is firmly and solidly filled. After removing the speculum, several large pledgets of cotton placed over the external end and firmly held in position by a T-bandage secured by a strap around the body above the hips, will complete the operation. Whatever is used in the formation of the tampon, whether it be cotton batting, lint or strips of cloth, should be aseptic as far as possible, and the pledgets should be secured to a string, the end left protruding for its better removal. If this is done, as above described, there need be no fear of further bleeding, and as a rule you need pay no further attention to the case for six or eight hours, when it will be time to remove the tampon, and, if needed, replace by a new one. Every physician knows that pressure thus exerted upon the os uteri causes relaxation and brings on expulsive pains. When the tampon is removed, as a rule the ovum will be either found in the vagina or extruding from the dilated os. The tampon may be removed sooner than the time above named if by cessation of pains it is evident the uterine contents have been expelled. There need be no fear of internal hemorrhage in embryonic miscarriage, for the uterine cavity is quickly filled and further oozing an impossibility. If the fetus has been expelled and the afterbirth still retained and not easily reached, the tampon may be replaced for a time.

No physician should consider his patient safe and his work fully accomplished until he has secured the removal of the secundines in any case of miscarriage which has advanced beyond the second month of pregnancy. If it should happen in any case that the tampon fails to produce the desired dilatation, other means for producing this result must be resorted to. The following from Dr. Bedford, in my opinion, is entirely at variance with facts: He says: "It is a curious and interesting fact that the retained placenta in cases of abortion does not, as at the full period of gestation, undergo decomposition, and therefore if it cannot be readily secured should cause no disquietude." Any one who follows this advice will find himself, every now and then, dealing with septicemia.

SOCIETY REPORTS.

THE PHILADELPHIA PEDIATRIC SOCIETY.

Regular meeting May 11, 1897.

J. P. CROZER GRIFFITH, M. D., in the Chair.

DR. HAMILL exhibited a boy 6 years old with

Enlargement of the Spleen,

probably of specific origin.

DISCUSSION.

DR. F. PACKARD.—I should be inclined to agree with Dr. Hamill in regard to the syphilitic origin of this condition of the spleen, but I must say I do not think that we can rule out the influence of rhachitis. To my mind the rosary there is sufficiently distinct to cause us to take that into consideration in regard to visceral changes. In cases of enlargement of the spleen in the young we always have to think of syphilis, particularly since Ball and Fox state that in almost 45 per cent. of cases of inherited syphilis the spleen was enlarged and syphilis existed in about fifty per cent. of the cases of enlargement of the spleen, so that the connection must be an extremely close one. Do you think it possible that there could be amyloid change in the spleen and liver accounting for enlargement of both these organs? Of course the only way that we could judge about that would be the previous history of the case; the failure of involvement of kidneys would be against it. I do not think the element of rickets can be entirely overlooked.

DR. S. M. HAMILL.—The rosary does exist to some extent. The rhachitic manifestations are, however, not very distinct, and this is practically the only one which is very evident. For this reason I am inclined to exclude rickets as a causative factor. I do not think amyloid degeneration exists, because the child has been absolutely

healthy, with the exception of an attack of epigastric pain which he had two years ago. The mother says he has been an unusually healthy, active boy. He was brought to me merely on account of vomiting blood, from which he suffered six or eight weeks ago. Since his recovery from that he has been feeling perfectly well.

DR. S. W. MORTON read a paper entitled

Multiple Paralyses as a Sequel to Measles.

(See page 44.)

DISCUSSION.

DR. H. B. ALLYN.—There does not seem to be any doubt that this was a case of multiple neuritis which followed measles. Most of the cases of measles in which neuritis, or any form of palsy, has followed, have occurred during convalescence, most frequently from the latter part of the first to the end of the third week. One feature that strikes me as a little unusual is the persistent high temperature which in this case is apparently to be explained by the extreme toxemia developed by measles. The temperature continued at 103° and 104° at a time when one would expect a fall, but I presume the high temperature must have been due to the intensity of the poisoning, and if the poisoning was intense it is not difficult to understand why there should have been such widespread neuritis, for it is well understood that peripheral neuritis may follow any of the infectious diseases. Cases have been reported following tuberculosis, leprosy, syphilis and septicemia, and quite a number of cases have been reported following small-pox, typhoid fever, pneumonia and, as in Mr. Morton's case, measles. In the paper on paralysis following measles which I wrote in 1891 there were 41 cases collected from literature and several cases were overlooked, notabyl the cases of acute poliomyelitis following measles reported by Sinkler and some cerebral palsies reported by Sachs and Petersen. In the majority of these 41 cases the palsy seemed to be cerebral in origin.

Of the cases, however, that were then classed as spinal I have no doubt that several were certainly cases of peripheral neuritis and not cases of spinal origin. For example, a case of Perlt's may have been an example of both peripheral and spinal palsy. The cases of Bergeron and Legard of ascending paralysis may have been wholly peripheral if the pathology of Russ and Bury be adopted. The pathology of neuritis following infectious diseases is interesting. In recent years since more attention has been given to neuritis, many of the cases formerly looked upon as inflammatory or degenerative must be regarded as toxic in origin. One of the cases I collected was probably toxic. Coma persisted for three days, and when this disappeared the child was unable to speak. Nevertheless recovery was remarkably rapid. The very rapidity of recovery, and if not the rapidity of its completeness, in cases of paralysis following the infectious diseases seems to indicate that the cause is really toxic and not degenerative or inflammatory processes. Gowers gives the most frequent cause as thrombosis. There is one case following measles in which there were impacts in the spleen and liver and a focus of softening in the brain. In this case the cause was almost certainly embolism. Whether the toxin acts by destruction of blood vessels, thus permitting of hemorrhage in nervous tissue, or whether it acts upon the nervous tissue or upon the motility of the neuron, is pure conjecture at present. The lesions found at death in chronic cases are of no value in explaining acute conditions.

DR. A. A. ESHNER.—The failure of speech noted in this case is an interesting symptom that may be explained as a part of the multiple neuritis. This defect seems not to have been aphasic, and it may have been due to an inflammation of the hypoglossal nerve, or perhaps of the tongue itself. I should like to learn from Dr. Morton whether there was evidence of paralysis of the palate or of the pharyngeal structures.

DR. GRIFFITH.—Dr. Morton has unwittingly, I am sure, done me a little injustice in stating that this subject is not referred to in any of the text-books of recent date. In the article on measles in Loomis' new System of Medicine I refer to paralysis as a sequel to measles, and I think I refer to Dr. Allyn's paper on the subject.

DR. MORTON.—I do remember consulting that work, but was in a great hurry when I did so, and perhaps it was because Dr. Griffith speaks of paralysis in general instead of neuritis. I remember now that Dr. Griffith refers to it that he did mention Dr. Allyn's paper and paralysis following measles, but made no distinct reference to multiple neuritis.

It is my opinion that the reason the child did not speak from the fifth day on, was that he was experiencing, every time he spoke or swallowed, excruciating pain. The moment anybody would come into the room he would begin to cry, especially when the doctor appeared. His mother staid out of the room. He would indicate that he was pleased when the shutters were closed, and my idea was that it was a painful muscular condition due to the same cause as was the general muscular soreness and hyperaesthesia. Even to this day the child cannot say more than bi-syllabic words and says most of these very indistinctly, so I supposed the early absence of speech was due to the early stage, the inflammatory stage, of the neuritis and the pain and tenderness attendant upon it.

There is one other thing to be explained, viz., the slowness in recovery. It is due to the fact that he has had no treatment all winter; the treatment was stopped the first of October, and he has had no treatment of any kind and his surroundings at home are

not very good; hence I think it is easy to account for the fact that he has improved very slowly.

A Case of Green-Stick Fracture of the Inferior Maxilla, with Photographs, was presented by DR. J. M. BROWN.

DISCUSSION.

DR. ROSENTHAL.—I saw, with Dr. J. Madison Taylor, a very peculiar case in a little infant that had fallen on its head and had a depression of the skull. It was probably half an inch in depth when we saw it, three or four days after it had received this injury. This depression gave no evidence of any compression of the brain, and had slowly receded into the normal contour of the cranium.

DR. STRECKER.—Some weeks ago a case of green-stick fracture came under observation. The child fell; diagnosis of sprain was made by the attending physician. Four months afterward I took a skiagraph, which shows green-stick fracture of radius and ulna.

DR. BROWN.—I do not know that I have anything particular to add, except since the occurrence of this injury my attention has been more particularly directed to this portion of the skull. I can see no reason why this could not occur, and yet the more complete fracture is what does occur. There was a question that arose in my mind concerning the injury or deformity as shown in the smaller of the photographs; that is, the possible revolving of the condyles inward on the planes of the glenoid fossa. I have had an opportunity of making but a very limited study of the skulls of children since that occurrence. At first I was firmly convinced that such a change in the position of the condyle could take place. Later studies seemed to render me doubtful as to this question, but I think if it does occur, or can occur, it is more likely to occur in this class of skulls that are shallow and wide. Taking the brachycephalic skulls, the protruding nose and jawbones, the skull that has a greater length from the chin to the occiput, I think this fracture is not so likely to occur. In the other class of skulls the glenoid fossa seemed to have a greater depth than the proportion of the condyles. The condyles apparently moved inward in this case.

DR. D. J. H. MILLER read a paper entitled

A Case of Scurvy.

(See page 46.)

DISCUSSION.

DR. E. E. GRAHAM.—I have listened to the report with a great deal of pleasure, and simply wish to corroborate everything said, excepting perhaps as to the frequency of these cases. It seems to me since the admirable article written a few years ago by Dr. Northrup many cases of scurvy have been recognized and not found their way into the medical journals. In the children's clinic that I hold there are certainly three or four cases of scurvy that appear every year. A majority of these cases are not so well marked as the one reported by Dr. Miller. What Dr. Miller says in regard to scurvy appearing in private practice is true, I think, and the fact that it occurs among the better class of our patients. These cases are, I think, not uncommonly mistaken for rheumatism or some form of cerebral spinal disease. I have seen three cases that were mistaken for either cerebral or spinal lesions, curiously enough in the family of a physician. I think scurvy is quite a common disease, the well-marked cases perhaps uncommon, but the milder manifestations, I think, we very often meet with. The fact that children seldom develop marked cases is, of course, due to the fact that the children are rarely kept on a proprietary food or an unsuitable diet after the very well marked symptoms develop.

DR. ROSENTHAL.—We see quite a number where I practice. Most of our cases have bleeding gums, but do not show the profound symptoms Dr. Graham speaks of. The people have a method of feeding the children from early life on zwieback, a food similar to toasted sweet bread, and nothing else, not even milk, for a time. After three or four months of this diet the children show signs of scurvy. These children, after they recover from scurvy, become rickety, and it is quite a time before they get well. By the time they reach the age of five years they have usually become healthy.

DR. GRAHAM.—In speaking of my cases I referred more to the pain that the children suffer from the swelling that occurred in the extremities, the continued fretfulness and cries of the child leading the parents naturally to suspect the presence of some cerebral or spinal lesion, not to any delirium or symptoms of that character.

DR. BROWN.—I am particularly glad to hear Dr. Graham call attention to what, in my mind, is a marked feature of these cases. If the child has become old enough to use its feet, one of the first thing the mother notices is the refusal of the child to use these members as before. A case of this character occurred in my practice about five years ago in a very well-to-do family. The child was left considerably to the care of a nurse and its food was not by any means proper, and it was to that we attributed this condition, as this is in the majority of instances the cause. The first anxiety in that instance was due to the child's complaining on standing. This was supposed to be due to a new pair of shoes and the old shoes were replaced, but still the child refused to stand; next pain about the arm, coincident with the bleeding gums. None of this was supposed to be of any importance until my attention was called to the bleeding of the gums, with suggestion from the mother that she

thought the bottle hurt its gum. I studied the case, and had Dr. Dercum see the case with me in consultation. The child made a good recovery under proper treatment.

DR. CLARA DERCUM.—I reported a case three or four years ago in THE MEDICAL AND SURGICAL REPORTER. The child in that case had been fed on peptogenic milk powder and milk and cream sterilized. It had been suffering from bowel trouble. The child was apparently well in the fall and I vaccinated it and it was vaccinated on the leg. We attributed the fuss that it made about being taken up to the vaccination on the leg. I did not see the case for two weeks when I was sent for and found the child with a temperature of 106 degrees. The vaccination had not healed; there was a rough ugly surface with occasional protracted bleeding. I examined the child somewhat carefully, and noticed it had swollen gums and a few purpuric spots on the body, and pain on lifting the child was marked. I immediately recognized the condition and the child was placed upon appropriate treatment. The high temperature worried me considerably, being 106°, although it did not remain that high very long. It was placed upon dilute sulphuric acid, orange juice and beef juice, and made a very rapid recovery. The vaccination was quite a long while healing up, and bled every now and then. Perhaps vaccinating the child might have precipitated the attack, but this case does show that children cannot be fed upon sterilized milk any length of time. This child had an appropriate food, so far as we could think of, for the summer months. It was under good hygienic conditions; had been at Atlantic City most of the summer.

DR. GRIFFITH.—I agree quite thoroughly with Dr. Miller about the rarity of these diseases in dispensary practice. I have watched for them carefully for a number of years. I have never seen but one case, and that is the case reported by Dr. Miller tonight, although I have had a chance to observe many children at the University and the Children's Hospital. I am being brought pretty well to the conclusion that there is no one article of food which we can say is the special cause of scurvy. I mean by that we cannot say that it is necessarily proprietary food or that it is necessarily sterilized milk which produces the disease. The occurrence of scurvy is simply an indication that there is something wrong with the food for *that* child, although it may be the proper food for another child. That is the reason one child thrives upon oat meal and another develops scurvy; some children get scurvy on sterilized milk; a lot of others, however, do not. Some children develop scurvy on proprietary infants' food, and others escape it. This statement has, of course, nothing to do with the question of the best food for infants, or the most liable to cause scurvy.

I might also say in this connection that a committee has been appointed this year by the American Pediatric Society to take up the collective study of infantile scurvy, as another committee has of diphtheria for the past two years. The society wishes to send out questions to all who have seen cases, for the purpose of studying what are the causes in the production of infantile scurvy, and I shall be very glad when the circulars are ready to send them to anyone who will let me know that he or she has had such a case.

DR. MILLER.—I found very few cases reported in dispensary practice, and on inquiry among my friends, not only in dispensaries but among the same class of private patients, it appeared to be equally rare. I think the point taken by our President is a very good one—that it is a food not suited to a particular patient that causes scurvy. I should rather put it that it is the want of a varied diet. We all know that prior to ten years ago condensed milk was an extremely popular food in this city. Dr. Albert H. Smith, who had an enormous practice among well-to-do people, prescribed condensed milk to almost all his patients. Hundreds of babies in this city were brought up on condensed milk, yet scorbutus was very infrequent. I think the reason scurvy did not develop in the period referred to was because at that time children were put upon a varied diet much earlier. Children now are brought up much more carefully than they were, owing to the teachings of physicians, and particularly to the publication of books on the domestic management of children, and the result is that they are kept upon an unvaried diet until a much later period than they were formerly. I believe among recent writers the only one who denies that food has anything to do with infantile scorbutus is Ashby, of Manchester. He contends that scurvy is simply a hemorrhagic diathesis, an exaggeration of the anemia which occurs in rhachitis and certain dyscrasias of children. He supports this view with quite a number of cases in which scurvy has developed in very young children who have eaten potatoes, which are supposed to have especial anti-scorbutic qualities, but I think the fact that scurvy develops in children who do not have rickets, or any other dyscrasia, although a great many of them do, and so often follows the use of prepared foods, militates very strongly against this view.

Dr. Frey (*Am. Med.-Surg. Bull.*) washes the plantar surfaces and the spaces between the toes in fetid feet once or twice a day with a two per cent. solution of formol, and employs the same solution for rinsing the inner sole of the shoe, thoroughly wiping after each washing. The results are better than with powders of salicylic acid, as this treatment has cured bad smelling of feet after the salicylic acid had failed.

PERISCOPE.

NEWS AND MISCELLANY.

An Army Medical Board will be in session at Washington City, D. C., during October, 1897, for the examination of candidates for appointment to the Medical Corps of the United States Army, to fill existing vacancies.

Persons desiring to present themselves for examination by the board will make application to the Secretary of War before September 1, 1897, for the necessary invitation, giving the date and place of birth, the place and State of permanent residence, the fact of American citizenship, the name of the medical college from which they were graduated, and a record of service in hospital, if any, from the authorities thereof. The application should be accompanied by certificates based on personal acquaintance, from at least two reputable persons, as to citizenship, character and habits. The candidate must be between 22 and 29 years of age, and a graduate from a regular medical college, as evidence of which his diploma must be submitted to the board.

Successful candidates at the coming examination will be given a course of instruction at the next session of the Army Medical School, beginning November 1, 1897.

Further information regarding the examinations may be obtained by addressing George M. Sternberg, Surgeon General, U. S. Army, Washington, D. C.

The next meeting of the **Mississippi Valley Medical Association** will be held in Louisville, October 5, 6, 7 and 8, 1897. All railroads will offer reduced rates. The President, Dr. Thomas Hunt Stucky, and the Chairman of the Committee of Arrangements, Dr. H. Horace Grant, promise that the meeting will be the most successful in the history of the association, and this promise is warranted by the well-known hospitality of Louisville and Kentucky doctors. Titles of papers should be sent to the Secretary, Dr. H. W. Loeb, 3559 Olive street, St. Louis.

A ready and reliable **test for sugar in the urine**, says the *Scientific American Supplement*, has been devised by Dr. N. R. Elliott, as follows:

℞ Cupric sulphate.....gr. xxvij
Glycerin (pure).....3iij
Distilled water.....3ijss
Liquor potassae.....ad ℥iv

Dissolve the cupric sulphate in glycerin, and heat. When cold, add the liquor potassae. The second solution of chemically pure tartaric acid. These solutions are stable and will keep indefinitely. Pour a drachm of the cupric acid solution into a test tube, and boil gently over a spirit lamp; add two or three drops of the tartaric solution and boil again. Now add the urine slowly, drop by drop, until eight drops are added. If no reaction takes place there is no sugar; but if there is a reaction, yielding a yellowish, or reddish, or greenish-gray deposit of suboxide, and which is marked and unmistakable, sugar is present. The reaction deepens in a few minutes.

Roentgen rays render no aid in **diagnosis of renal and biliary calculi**, by reason of interposition of ribs, proximity of graph than do the thicker sections which kidney to vertebral column, depth of cavity, and thickness of overlying tissues. Reproductions of shadowgraphs show the effects of the rays on the various salts composing the calculi after removal from the body. The lime salts of thin sections offer greater resistance and show darker in the shadow. are composed of uric acid and urates entirely. Also the rays seem to find a greater difficulty in passing through the two media when one is superimposed directly upon the other than when passing through either the lime salts or the urates separately. It is a question if calculi composed of uric acid and the urates and biliary calculi would cast any appreciable shadow when acted upon by rays strong enough to pass through the thickness of the renal or hepatic areas of the body. But with calculi composed of oxalate of lime or mixed with phosphates this doubt does not apply, because these salts leave a deeper shadow than bone. From this comparison it is deduced that the shadow cast by the skeleton is due to the lime salts in the bones. Shadowgraphs of a rib and a decalcified rib were made under like conditions of exposure, etc. The former left a deep shadow, the latter scarcely any.—*Massachusetts Medical Journal.*

A. Valenta (Wein. Med. Woch.; *University Med. Mag.*) refers to the **extraordinary case of plural pregnancies** reported by H. X. Boer in 1808. The patient was a woman, aged 40 years, who suffered from epileptic fits, and during a married life of twenty years had given birth to thirty-two children in eleven pregnancies. Twice she gave birth to quadruplets, six times to triplets, and thrice to twins. Twenty-six of the children were boys, six were girls. Twenty-eight were born alive and four dead. Her first pregnancy was at the age of 14 years and resulted in quadruplets. The mother herself was one of quadruplets, and her mother had a family of thirty-eight children, and died in the puerperium after giving birth to twins. There was an hereditary history of plural births on the father's side, he being himself a twin.

Carbolic Acid Burns.—After finishing a post-mortem examination I washed my hands thoroughly with soap and water under a tap. Part of the contents of an eighty-ounce bottle, labeled carbolic acid 1 in 20, was poured over both hands. The skin immediately turned white, intense burning and tingilng commenced. Endeavored to wash off acid with water. A colleague recommended alcohol, of which a bottle was soon procured, and hands thoroughly washed with it. The burning and tingling almost immediately ceased. Some time afterwards five spots on the forearms, where acid had dropped, were red and burning. Alcohol had then no effect. These were brushed over with saturated solutions of picric acid in water. Results: Shedding of superficial layers of skin on hands; staining of five spots on forearms with picric acid. Conclusions: Alcohol is but immediate treatment for burns with carbolic acid, because the acid is soluble 6 in 1 of alcohol. Saturated solution of picric acid in water, in this as in other superficial burns, is good treatment.—*C. S., in Canadian Practitioner.*

A pointed object lesson is afforded by the volume recently published in commemoration of the opening of the new Hygienic Institute at Freiburg-in-Baden. For the last eight years the teaching of hygiene in that university has been much cramped by want of space, the only available rooms having been borrowed from the pathological department. The site, valued at some £1,500, was given by the town. Then the University Council voted the sum of £8,000 for the building; on applying to the government for ratification consent was not only given, but the whole amount was forthwith granted to the university, in addition to the ordinary budget. A further £2,000 was subsequently added for the Veterinary Institute. With such magnificent support, the only care remaining was to perfect the efficiency of the work; thus, for example, a sum of nearly £420 could be used in providing the electrical installation. The new building is perhaps the most complete of its kind in existence. It is not only an institution in which hygiene can be investigated and taught, but an example, approximating to perfection, of an edifice constructed on the most approved principles of modern sanitation. The thoroughness with which everything connected with this institution has been carried out cannot but compel reflection. Freiburg-in-Baden is a town of just 50,000 inhabitants, little more than one-hundredth the size of London. The State spends, roughly, £12,000 on a hygienic institute for it, and who shall say that the money is ill invested? The experimental study of hygiene must lead—has, indeed, led—to the most far-reaching benefits to mankind, and it is a national disgrace that provision for it there is in England practically none. The record of one health institute alone—that of Professor Koch, in Berlin—should suffice, if but for very shame, to stimulate that public spirit in matters scientific which is as yet so foreign to our most insular country.—*British Medical Journal.*

The Dietary of Cyclists.—Dr. Lucas-Championniere, of Paris, who has devoted a good deal of attention to the medical aspects of cycling, expresses his opinion that 600 kilometres in twenty hours, the time in the Paris-Bordeaux contest, was not too much for a healthy and well-trained rider. Dr. Championniere gives the following details of Rivierre and Cordang's methods during the Bordeaux-Paris race. "They did not eat nitrogenous food, and they were right. But though they did not eat, they drank enormous quantities of liquid to replace the liquid or weight lost by perspiration. They drank tea, beef-tea and milk. It is useless to eat during violent exercise, but it is important to drink, and if the body is in good working order the only result of the effort is a decrease in weight. The effect on animals is similar. M. Paillard, the sportsman, who rode 1,200 kilometres in sixteen days last year on his two mares, Pomponne and Merveilleuse, did not increase their ration of oats, but gave them large quantities of green fodder and water. It is the same with our cyclists, who race on fruit and a deal of liquid." This is right as regards the quality of food required on a long distance contest. Whether such a race be harmful to an exceptional rider, properly trained or not, we do not yet know. Mills, Shorland, Holbein, Bidlake among English, and Rivierre, Huret, Stephane, Dubois among the French riders, with many others who have frequently competed in such races, are still well and healthy, including D. Stanton, who raced about 1874 and 1875 in six day races. We must watch their careers in future before we can lay down any rule. Our own opinion is that it does no harm to the man of exceptional physique, but is most harmful to the many who are improperly trained.—*Lancet.*

Hysterical Spasm of the Diaphragm was the diagnosis made in a girl, ten years of age, presented to the Vienna Medical Club by Karl Berdach. The patient had for twelve days uttered a sound, resembling the word "so," at intervals of less than a minute. The affection first appeared after the girl had been scolded. The laryngoscopic examination was negative. The author was acquainted with only one similar case, that of Seeligmuller. Kassowitz does not think that these cases, which were formerly classed with chorea magna, and later were called "chorea laryngis," are so very rare. As regards prognosis, these attacks generally cease of their own accord after the occurrence of some extraordinary incident; hypnotic suggestion might also possibly be of service.—*Pediatrics.*

Dr. J. E. Ferran, in Arch. de la Policlinica of Havana (*Am. Med.-Surg. Bull.*), in an article entitled "**A Contribution to the Treatment of Chronic Nephritis**," advises a vegetable and fish diet under the following circumstances.

1. When the quantity of urine passed exceeds 800 grams in the twenty-four hours.
2. When the urea and the density are somewhat augmented, or, at least, normal.
3. When there is increase of phosphates and phosphoric acid.
4. When the quantity of albumin is not exaggerated, nor subject to great variation. He desires to note that, in order to estimate the real quantity of albumin, he would recommend not to use Esbach's apparatus, owing to the fact that its reaction at the same time precipitates mucin, peptone, etc., which are causes of error.
5. When there is not great abundance of granular casts.
6. When the general condition is satisfactory.

The Buffalo *Medical Journal* sums up **what constitutes a pure water supply** in the following five propositions:

1. That the water supply should not be liable to pollution by the sewage of another community.
2. The sewage of the community should not be emptied into a water course with a current of less than three miles per hour, and the sewage entrace should be at least a mile below the intake.
3. If the water supply is from a navigable stream the water should be sand-filtered before being supplied.
4. For drinking purposes the water should be either filtered, boiled or distilled and aerated.
5. Chemical and bacteriologic examinations should be made at least once a week, and where contamination exists an engineer should be employed to detect its cause and oriign.

Pioneer Woman Interne in Mexico.—Miss Columba Rivera has been licensed as a practicing physician, and appointed to the woman's ward of San Andre's Hospital. She is the first woman in Mexico to obtain such a position. Miss Rivera has studied medicine for four years, passing her examinations with great credit.

Cephalic Acromegaly.—Bassi reports (*Journ. of Nerv. and Ment. Dis.*) a complete clinical history and the pathologic findings of a case of partial acromegaly, or the incomplete form known as cephalic acromegaly associated with syringomyelia and solitary tubercle in the cerebellum. He was able with much certainty to make the diagnosis of all three affections intra vitam, which was confirmed by the autopsy. The syringomyelia seemed to antedate the acromegaly and cerebellar tubercle.

Demon (Bordeaux) reports a case of **Fecal Tumor** in a child eight years of age, which resembled an intra-abdominal neoplasm. The tumor extended from the xiphoid process to the symphysis and to the loins; it had an irregular nodular surface, and could be indented by pressure. Rectal exploration revealed hard fecal masses, and 800 gm. were removed at the first sitting. Ten days later, after five more digital excavations had been made, not a trace of the tumor could be discovered. According to Reverdin, such fecal tumors may end fatally.—*Pediatrics.*

The Diplococcus of Fraenkel.—Levy and Steinmetz (*Archiv für Exper. Path. und Pharmakol*) agree with Kruse and Pansini in the extreme variability of the diplococcus *lanceolatus*. They find that the best cultures are made on media containing albumen or blood, fluid media being exhausted in twenty-four hours. The statement of Foà that there are two varieties of diplococcus, the toxic and the septic, could not be confirmed. Zuber (*These de Paris*, 1896) has devoted special attention to metastatic deposits of the diplococcus and the resulting clinical manifestations. The secondary lesions are probably due to the condition of the part in which they occur. Zuber has observed pneumococcus infection in an old fracture, in a long healed osteomyelitis focus, and suppuration in a gouty joint. His experimental work has also demonstrated that physical and chemical insult precipitate secondary deposits. Fernet and Lorrain (*Gazette des Hôpitaux*, No. 40, 1896) record a case in which chills, bronchitis, fever, sweating, rigid neck, benumbed sensorium, swelling of one sterno-clavicular joint were the only clinical manifestations. At the autopsy basal suppurative meningitis and arthritis of the sterno-clavicular joint were observed. Cultivations gave pure growths of the encapsulated diplococcus, which were interpreted as metastatic deposits of an already resolved pneumonia. Suppurative arthritis is extremely rare in pneumonia. In the Charié only two instances in 3,293 cases were seen, and in Munich but one in 650 cases. Vogelius (*Archives de Méd. Expér.*, No. 2, 1896) describes one in which operation removed from the right sterno-clavicular joint much sero-purulent fluid, the cartilage and bone being considerably ulcerated. In another case, a metapneumonic empyema and coxitis occurred. This patient died with ulcerative endocarditis, but no autopsy was allowed. In both of Vogelius' cases the pneumococcus was identified by pure cultures. He found in the literature nine similar cases with bacteriologi findings. The complication may occur before or after the crisis, indeed in one case three days prior to the pneumonia. The arthritis is mostly monarticular and chooses the joints of the upper extremities. Fever and chills are common, and in one instance the adjacent muscles were invaded.—*Medicine.*

Lewellyn Eliot publishes in the *Virginia Semi-Monthly Medical Journal* the report of four cases of **restoration of the sphincter ani** after its destruction. In most of these cases the sphincter ani had been severed during operations for anal fistula. Dr. Eliot maintains that in making the operation for fistula *in ano* it would be better to insert sutures after dissecting out the cicatricial tissue, in order to obtain a first intention result and preserve the sphincter ani. In the cases which he has operated upon for weak or wholly disabled sphincters, he has for the most part excised the cicatricial tissue which separated the ends of the sphincter muscle, and then drawn together with silk sutures the divided sphincter. In the four cases presented the results have been all that could be desired. Others who wish to practice this method must, however, be cautioned against expecting too much in the way of a first intention result in the presence of such an immense amount of infectious material as we must necessarily meet with in operating upon these parts.

Normal Salt Solution in Postpartum Hemorrhage.—In the Moscow Maternity Hospital, during the years 1892-5, the infusion of a .06 per cent. solution of chlorid of sodium was used in fifty-one cases of postpartum hemorrhage. The results are reported by S. S. Cholmogorov. With the appearance of the symptoms of surgical anemia, one to three clysmata of from 200 to 250 c.c.. were given. If the symptoms increased in severity, and the pulse became small and rapid (120 to 140), the writer has been recently in the habit of using subcutaneous injections of the same solution, in preference to the rectal injection. The injecting needle was plunged into the subcutaneous connective tissue of the leg, abdomen, or thorax, as in giving an hypodermic injection, and from 200 to 1,500 c.c. were injected in all, and the places afterwards thoroughly massaged. In extreme grades of anemia, subcutaneous injection was practically without effect. The individual cases are thoroughly studied by the author. He opposes the views of those who regard the use of the normal salt solution as purely palliative, and would always follow it by a transfusion of blood. Cholmogorov believes that the patient is practically saved when, as a result of the injection, the general symptoms have improved. If the quality of the pulse is not markedly improved after the injection, for the reason that this is not absorbed, it is very questionable whether the hypodermic or intravenous injection of blood can avail in the restoration of the patient. Owing to the few observations upon this point the author leaves this question unanswered.—*Mass. Med. Jour.*

According to Dr. H. M. Bannister, in the *Amer. Jour. of Insan.*, the **"loss of consciousness during an attack of grand mal is not necessarily absolute."** He cites a number of cases to show that consciousness may be partly or fully retained, and concludes:

1. That the epileptic discharge in the cerebrum may in some cases not involve all, or to any extent, those organs or parts concerned in psychic function, so as to seriously affect or abolish consciousness.

2. There may be states of epileptic double consciousness, as it may be termed, in which it cannot be said that the mental functioning in the abnormal condition is less perfect and complete than in the normal state.

3. The post- (or pre-) epileptic outbreaks of violence, while attended with excessive irritability and loss of control, and generally with a failure in the higher moral inhibitions, need be accompanied with no more impairment of consciousness than would naturally be caused by intense emotional disturbance in other conditions.

4. There may be a true or apparent automatism, not attended with any loss of general consciousness, and due, possibly, to the rapidity of some psychic reflexes exceeding the limit of the reaction time necessary to their conscious recognition.

5. The definition of epilepsy which makes loss of consciousness an essential is an arbitrary one, not supported on pathological or clinical data, either in the ordinary convulsive phase of the disease or in its psychic manifestations.

Dr. Krauss, of Buffalo (*Alienist and Neurologist*) summarizes the **primary or cardinal and the concomitant symptoms of exophthalmos** as follows:

Primary—Tachycardia, goitre, exophthalmos, tremor.

The concomitant symptoms are classed as those of the digestive tract, of the respiratory tract, of the eye, of the nervous system, cutaneous system, urinary tract, genital organs and those of diverse origin. The four cardinal symptoms are pathognomonic, but of these the author considers tachycardia the most important; indeed, it may precede the other symptoms by months or years, while the exophthalmos is frequently last in appearing. As to the pathology, he accepts the theory advanced by Koebens and defended by Trousseau, Fulenberg and Oppenheim, that it is due to some affection of the sympathetic nervous system. The most important element of treatment is the systematic use of the galvanic current, ½ to 1½ milliamperes from one to three minutes every other day. The cathode is applied at the angle of the lower jaw, first on one side then on the other, while the anode is applied at the nape of the neck. The medical agents comprise strophanthus in gradually increasing doses, codliver oil, trional for insomnia, bromides for quieting temporarily the nerve activity, and nux vomica and phosphoric acid for dyspeptic phenomena. He has had no experience with thyroid feedings in this disease.

Wageman (*Arch. of Ophthal.*) says that it has but lately been realized that **true gout may cause ocular disease**. Instances are more frequent in England and France. The gouty diathesis, whether the symptoms be typical or atypical, must be demonstrable in order to make the diagnosis. The familiar involvement of the metatarso-phalangeal joint of the great toe, changes in other joints, disturbances of the digestive tract, muscles, organs of respiration, circulatory or nervous system, or gouty cachexia may be present. Neuralgia, lumbago, spasm of the calves, early atheroma of the vessels, migraine, eczema, etc., may occur, and are of diagnostic value. Urinalysis reveals free uric acid and excess of water. The tissues of the eye which are most likely to be involved are the choroid and sclera, but the following may also occur: Lithiasis and eczema of the lids, keratitis senitis as a form of peripheral corneal opacity or a circulus seniles, scleritis, iritis distinguished by a great tendency to hemorrhage and excessive painfulness, choroiditis, cyclitis, retinitis, retino-choroiditis, cataract, particularly presenile glaucoma, thrombosis of the retinal vessels, migraine with visual disturbances and paralysis of the ocular muscles. The decidedly favorable effect upon glaucoma of anti-arthritic treatment in these cases is striking. Often the glaucomatous process increases despite eserin and accurate correction of refraction for distance and near, until an inflammatory outbreak transpires, and the symptoms subside only when general treatment of the gouty diathesis is resorted to systematically. Gout may predispose to glaucoma by causing certain vascular changes, producing a tendency to inflammation in the arterial tunics and endothelium and by inducing **rigidity of the sclera.**

Dr. E. Comini has reported **three cases of acromegaly** (Arch. p. lp Sci. Med.; Boston *M. & S. Journ.*). In the first case the objective symptoms of acromegaly were pronounced, the only subjective symptom being a slight morning headache. In the second case there was disturbance of vision, insomnia, symptoms developed rapidly—disturbance of sensation about the arms; marked improvement followed the use of thyroidin. In the third case muscular atrophy was present along with a peripheral neuritis. The autopsy on this case showed congestion of the pia; cerebral edema; the pituitary gland enlarged so as to resemble a pigeon's egg, and softened, the posterior part of the sella turcica narrowed and deformed; normal size of the thyroid gland, weight, gr. 100; no trace of persistence of the thymus gland; atrophy of the muscles of the forearms and hands, which stood in contrast to the hypertrophy of the corresponding bones. Microscopic examination showed histologic alterations in the hypophysis, in the thyroid and a neuritis of the radial nerves.

"Gas Baccilli" and Putrescence in Utero.—Dr. G. W. Dobbin (*Johns Hopkins Hospital Bulletin*) reports a case of puerperal sepsis due mainly to the bacillus aerogenes capsulatus.

The patient, a multipara with generally contracted pelvis, had been in labor two days with a child of large size, and was under the care of a midwife. On approach the bed a sweetish, offensive odor was perceptible, and the maternal genitals emitted a bubbling, crackling sound, whilst the vaginal discharge contained many gas bubbles. Delivery was accomplished with the Tarnier basiotribe, under chloroform. Immediately after it there was an explosive escape of sickening fetid gas from the uterine cavity. There was as yet no tissue emphysema. Next morning "gas bacilli" were found in the tissues of the fetus and in the placenta, and the same evening the mother died. A few hours later the body was enormously swollen and emphysematous. The fetus and the placenta were likewise infiltrated with gas, which burnt with a flame when ignited, and were infested everywhere by the "gas bacilli" along with staphylococci and streptococci. The placental blood vessel contained gas cysts surrounded by a zone of these bacilli, cultures of which were made. A pigeon and rabbit were inoculated and rapidly developed an edematous emphysema. These observations are in accord with those of Welch and Nuttal, who attributed many cases of supposed entrance of air into the uterine sinuses to this parasite. They also found that this bacillus when inoculated into rabbits was not usually fatal, but that if the animal was then killed the micro-organism developed rapidly, with abundant formation of gas in all organs. Dr. Dobbin argues that in his case the bacilli was introduced by the nurse; that they found in the dead fetus, as in the dead rabbit, a suitable nidus, and filled the uterine cavity with putrid gas; and that the mother died not from infection by the bacilli, but poisoned by the toxins produced by them, her own macerated vaginal tissues, however, acting as a seat of germ development.

Tattooing is generally regarded as a cosmetic procedure designed to the embellishment of persons who prefer Art to Nature. There is good reason to believe, however, that it is a very ancient method of treatment, the forerunner, in fact, of the more modern but long since abandoned sacrification. An Egyptian mummy, discovered in 1891, representing the mortal remains of a certain priestess of Hator, who exercised her functions some five thousand years since, displayed evident traces of methodical tattooing of the abdomen, suggesting that the cause of death was generalized peritonitis. Inquiry has elicited the fact that tattooing is still currently resorted to in Egypt in the treatment of periostitis, arthritis, and synovitis, and even for migraine and neuralgia. The treatment is carried out by women, who promenade the streets in the native quarters, crying "Tattoos, pierces ears, etc."—*Press and Circular.*

D'ALLOCCO (*Rif Med.*, January, 1897) records 24 cases of **Myoclonus**, 19 of which occurred in 5 different family groups. Almost all showed more or less marked stigmata of degenerations, such as anomalous development of various parts of the body, especially the cranium, and anomalies in the psychical sphere—such as Hysterism, epilepsy, neurasthenia. Four of the cases might be classed as epileptics. Myoclonus associated with epilepsy is, in the authors' opinion, not only one of the phenomena of degeneration, but also a special phenomenon of epilepsy. Whether myclonus associated ciated with epilepsy may be a marked form of that disease is not certain but there are cases which seem to support that view. In the author's cases the muscular contractions were clonic, more or less diffused, chiefly fibrillary, with slight movement of the heart, but in some cases larger and exciting coarse rhythmic movements, true tremor, or partial choreiform movements. In some cases the various types of spasm were, as it were, interchangeable. Each case is more or less fully reported.

The Gastro-Intestinal Hemorrhages of Infants.—Hermary (*These de Paris*, 1896-97, No. 5) points out that hemorrhages from the stomach or bowels in young children as a rule occur within the first ten days after birth. Haematemesis without melaena is so rare that all cases may be included in the term "elaena neonatorium." Melena spuria, in which the blood does not come from the stomach or intestines, but has has been swallowed, is far the most common form; the blood generally comes from cracks in the nurse's nipples, and the child's health does not suffer. Melaena vera is met with in only 34 per cent. of the cases. It occurs as a rule in children otherwise doing well and within the first three days, but when the result of intrauterine affection or abnormal labour it may appear within the first few hours after birth. The pathological lesions hitherto discovered are congestion of the gastro-intestinal mucosa, or ulceration of the stomach or duodenum; the lower portion of the small intestine is not so frequently affected, the colon never. The other viscera are generally anaemic, rarely congested; Pomorski and v, Preuschen have met with intracranial hemorrhages, Herrgott with a cardiac defomity. The congestion and ulceration are to be attributed to the secondary influence of causes affecting the entire organism—asphyxia, portal obstruction, compression of the abdomen during labour, hemorrhage into the fourth ventricle causing vasomotor disturbance, organic malformations, exposure to cold, infection, or syphilis; from the absence of lesions or pathognomonic symptoms many cases cannot be explained. There are numerous symptomatic forms. In typical cases the prodromata are insignificant; the hemorrhage occurs suddenly, and, if there is any hope, ceases in less t han forty-eight hours; it is sometimes so slight that the child continues to take the breast and does not materially suffer, sometimes so severe as to kill in a few hours. Infectious forms vary from the slightest to those with multiple haemorrages and grave general symptoms. The mortality is variously stated from 51 to 84 per cent. The treatment should consist in warmth, iced milk, dilute alcohol sedatives, ergot or rhatany, but no active astrigents and no clysters: in emergency oxygen, ether, dry cupping, artificial respiration, serumtheraphy. In Syphilitic cases, specific treatment as soon as the haemorrhage will allow.—*British Medical Journal.*

MOTTA (*Archiv. di Orteped.*, An. 14, f. 2, 1897) contributes the first part of a study (with 2 cases) of **Congenital Absence** of the **Tibia**. The author has collected 50 cases in 39 subjects. In 11 the absence was bilateral, 19 males, 9 females. In 5 the sex was not named, and 6 occurred in foetuses. it was generally associated with deformities of other limbs. The femur of the same side was usually altered in shape and size. The patella was often absent, also the crucial ligaments and semilunar cartilages. The fibula was generally thickened at its extremities. Two cases, with photographs, are carefully recorded and described, the one in a child of 7 months and the other at 30 months. Most of the usual muscles seem to be represented in these cases although considerably altered. As to the etiology, heredity must be excluded, as there is seldom any history of family deformity. Maternal impressions have probably no marked in fluence. The deformity occurs at various epochs of intrauterine development.

F. VILLARD (*Journ. de Clin. et de Therap. infant.*, April, 1897) reports a case of **appendicitis in an infant** scarcely 4 years of age. There was a history of habitual constipation. About two days previous, the child began to complain of pain in the right side of the abdomen, and this steadily increased, being worst at night. There was a swelling in the right iliac fossa and pain on pressure. Micturition was normal, but there was complete constipation . There had been some vomiting, and the temperature was above the normal. An incision was made above Poupart's ligament. It was noted that the cellular tissue was oedematous, and on cutting through the muscular layers a large abscess cavity with some faecal contents was opened into. The pus was evacuated, and an unsuccessful attempt made to find the appendix. A further attempt revealed it lying behind the caecum and perforated at its base. It was easily removed, and was found to contain a small mass of hardened faeces. Villard is of opinion that one should operate between the second and third day in such cases if the symptoms do not ameliorate. One should not temporise, although the condition may tempt one to do so.—*British Medical Journal.*